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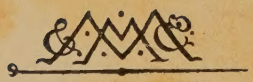

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TORONTO

A group of Tatar Girls.

OVERLAND TO INDIA

BY

SVEN HEDIN

WITH 308 ILLUSTRATIONS FROM PHOTOGRAPHS, WATER-COLOUR SKETCHES, AND DRAWINGS BY THE AUTHOR AND 2 MAPS

IN TWO VOLUMES

VOL. I

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TO

MY FRIEND

LIEUT.-COL. SIR J. R. DUNLOP SMITH

K.C.S.I., C.I.E.

PREFACE

The very name of India is alone sufficient to fire the imagination of the reader. He fancies he hears the murmur of warm winds among the palms and mango trees, and thinks of the teeming life and the continual struggle for existence in tropical jungles. He seems to see the brilliant trains of Indian princes, swarming crowds of dusky Hindus, grand troops of elephants, tigers trying to escape from the bloodthirsty hunters, gilded pagodas, and marble temples white as the Himalayan snows.

Of all this busy life, with its gorgeous colouring, there is not the slightest mention in my new book. It deals only with the way to the land of a thousand legends; and my route ran through the ancient, desolate, and effete Persia. Well, but Persia is the land of roses and poetry. There Sadi and Hafiz sang their lovely verses; there still remain ruins of the stately palaces of the Achæmenids. Yes, that is true, but this time my route did not touch one of the famous centres of Iran. They have been repeatedly described by writers from Herodotus, the Bible, and the cuneiform inscriptions in Bisutun, down to the immortal Marco Polo, the chivalrous Chardin, the far-travelled Houtum-Schindler, the intrepid Vambéry, and the learned Lord Curzon. I diligently avoid routes trod by the feet of others; and at the present time this is not easy, for Persia has been traversed by Europeans in all directions. As regards the way from Trebizond to Teheran, it is quite

impossible. East of the capital it is easier, for there the routes lie farther apart. The great salt desert is crossed only by two.

My journey proper began from Teheran, and outside the gates of Teheran begins the desert; and then there is nothing but desert all the way to India. The reader who, nevertheless, has patience to accompany me will see for weeks and months nothing but yellow, brown, or white wastes in all directions. He will see the sun rise up from the distant horizon of the desert, describe an arc through the heavens, and set beyond the wilderness in the west. I can freely forgive him if he grows weary of the perpetual ring of caravan bells, and looks eagerly for an oasis where for a while he may wake from his slumbers. And if he goes with me as far as the Indian frontier he will, perhaps, grumble that, in this age of hurry and excitement, I have written two volumes all about deserts.

I have tried to depict this lifeless country as faithfully as possible, and hence, perhaps, there may be a flatness in the description. Travelling in Persia is as calm and peaceful as on country roads in Sweden, and exciting adventures are exceedingly rare. One day is like another,—only a few more miles being traversed over new tracts of desert.

I paid particular attention to the peculiar form of salt desert called Kevir. In order to illustrate the problem of its formation I have collected, in certain chapters, the results arrived at by other travellers, with extracts from their narratives. In looking up the necessary material I have received invaluable assistance from Dr. Otto Quelle of Gotha, who supplied me with the titles of several works on Eastern Persia, as well as excerpts. The historical part has no claim to completeness. My views regarding Marco Polo's route from Kuhbenan to Tun may meet with opposition, but I cannot change them.

Whatever the reader's verdict on the text may be, he must acknowledge that the two maps are excellent. They have been drawn by Lieut.-Colonel A. H. Byström, who has spared neither time nor labour. The first map is intended to give a general sketch of Persia, and to show my route through the country. The special map is based on my 232 original sheets—of which, however, about fifty relating to Baluchistan are not available, for political reasons—and the latest English and German maps. A preliminary map in eleven sheets has been constructed in the Survey of India department from the original sheets. From the same original material Lieut.-Colonel Byström has, during the past year, compiled a detailed map on the scale 1 : 300,000, which will be published in seven sheets in a scientific work to be issued later. On these seven sheets is based the special map in this book.

In order that the map may be clear, only the more important names and the camping-places have been inserted. I cannot answer for the bounds of the desert, except those I have followed or crossed myself. In some places, as, for instance, in the north-west of the Kevir, they are uncertain. Besides the great desert belts, there are undoubtedly many smaller ones. Kevir expanses are exceedingly numerous in Eastern Persia. Most travellers who have visited the country have not considered it necessary to mark them on their route-maps.

Dr. Nils Ekholm has calculated the absolute heights, with his usual accuracy. A large number are inserted on the special map to render more apparent the relief of the country.

The rocks mentioned here and there in the text have been identified from the specimens brought home, by Anders Hennig, Lecturer in the Lund University.

With the exception of five, all the photographs are my own. The pencil drawings here reproduced may suffice

to give a conception of Persian folk types—they have no other merit.

The six coloured pictures have been executed from photographs by the artist P. Lindroth, to whom I gave instructions regarding the colouring. All the blocks and maps were made in the Lithographic Institute of the General Staff, and do great credit to its skill.

I desire to express my most hearty thanks to all the gentlemen I have mentioned, as well as to my father, who, though eighty-four years old and an invalid, has made a clean copy of my often nearly illegible manuscript, and to my sister Alma, who has compiled the index.

Also I wish to acknowledge here my obligations to Sir Rennell Rodd, now Ambassador at Rome, who procured me a special permission to travel along the Seistan-Nushki Trade Route; to E. Grant Duff, British Chargé d'Affaires, who, with his charming wife, entertained me so hospitably in their house at Teheran, and, as well as the Swedish Consul-General, A. Houtum-Schindler, gave me good advice and assistance in various ways; to Major Sykes, who is a great authority on Persia, for the valuable hints and advice he sent me by letter; and to Captain Macpherson for his generous hospitality in Seistan. Indeed, all the Englishmen I met on my journey to India treated me right royally, and I look back with pleasure to the days I spent with them.

The dedication is a slight mark of the gratitude I owe to Colonel Sir J. R. Dunlop Smith, private secretary to the Viceroy of India at the time of my expedition, and now political A.D.C. to the Secretary of State for India, Lord Morley of Blackburn.

SVEN HEDIN.

STOCKHOLM, *October* 16, 1910.

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CHAPTER I

BATUM DURING A STRIKE

How stormy, dark, and tumultuous the billows of the Black Sea appeared when, at the end of October 1905, I traversed it in a Russian vessel from Constantinople, passing Sebastopol, Yalta, Kerch, Novorossisk, and Poti, to Batum; and yet how peaceful, hospitable, and friendly compared to the turmoil that raged with senseless and hateful madness in the sea of human beings which forms a semicircle round the northern and eastern coasts of the Black Sea.

The *Svatoi Nikolai*, or *St. Nicholas*, which, besides myself and a few other passengers, carried a heavy cargo to Batum, rocked like a nutshell on mountains of violently agitated water—I could hardly have believed that the Kara Denis of the Turks and the Chernoye More of the Russians could have been so rough, or hillocky, to use a topographical expression. We parted with some of our passengers in the Crimea, and beyond Novorossisk only three were left in the first class, Colonel Ileshenko from Van on the Persian frontier, the Consul Akimovich on his way to his new post at Bayazid, and the author. During the latter part of the voyage we saw little of one another—the sea was too rough, and only an acrobat could have made his way to the saloon, so we preferred a recumbent position in our cabins. My port-hole was on the lee side; at every roll it dipped five or six feet under water, but between the plunges I could see the coast-line at a distance of a couple of cable-lengths, and the forest-clad crests of the Caucasus, already partly covered with snow and gleaming white and cold in the sunshine.

We tarried a while in the roadstead of Sukhum-Kale; a couple of boats rowed by sinewy Abkhazians took off a little cargo; a boatman came on board and talked with a young woman on the middle deck; she burst into continuous weeping, and all efforts to console her were vain. Her husband had been shot in a riot. She was one of thousands and thousands of Russian women who wept in those days. Her wailing sounded desperate and hopeless above the raging of the storm till the end of the voyage.

Beyond Poti the violence of the storm increased, the sky was blue-black, and the rain pelted on the deck and the saloon windows, but we had only three hours more. At midnight the vessel entered the harbour of Batum. What a dismal landing! Pouring rain, pitchy darkness unbroken by lights, dead silence, no porters, no droskies, and, worst of all, the news that railway traffic had been stopped three days before. In fact, a great strike was in progress, involving all departments of labour and trade.

However, under cover of the darkness, a couple of bold dock-labourers ventured, in consideration of high pay, to take charge of our luggage and guide us to the nearest hotel, a regular den of thieves, full of rogues and vagabonds. If they were detected as strike-breakers, they would be mercilessly shot down, our porters assured us, and we subsequently found that their statement was not exaggerated.

I was on the way to Teheran. But I might well be asked why on earth I chose just now the route through the Caucasus, the most restless corner of the Russian Empire. Well, when I left Constantinople on October 25, furnished with two special passports from the Russian Ambassador Zinovieff, formerly Minister in Stockholm, comparative quiet prevailed in Russia, and at least the railways were being worked. My goal was Tibet, and I had decided to travel overland to India. I had a choice of three routes to the capital of Persia: (1) Batum–Tiflis–Baku–Resht–Teheran; (2) Batum–Tiflis–Erivan–Nakichevan – Tabriz – Teheran; (3) Trebizond – Erzerum – Bayazid–Khoi–Tabriz, and Teheran. I knew the first of old, and therefore wished to avoid it. The road from

Trebizond, according to information received from Dr. Martin at our embassy in Constantinople, was now, in autumn, almost destroyed by rain, snow, and swollen rivers, and the Persian ambassador Mirza Riza Khan, formerly Minister in Stockholm, also advised me not to take the long laborious journey over the mountains of Asia Minor. Therefore, and also to save time, I chose the road through Erivan, by which I should travel in five days from Batum to Tabriz and in two weeks to Teheran. But fate decided otherwise, and instead of making a short journey to the residence of the Shah, I lost half a month on the coast of Colchis.

The *St. Nicholas* stayed a day, and then returned with all its cargo to Odessa, and the same fate befell all the vessels which came in afterwards, whether they were from Russia or elsewhere, and the losses arising hence may be estimated in millions.

We passed the night in the robbers' den of the "Versal," which was open to wind and weather, and therefore both host and guests ran the risk of being treated as strike-breakers. But early next morning I changed my quarters to the hotel "Frantsia," to get a proper roof over my head. The hotel was barred and bolted, the window-shutters were closed, all the servants had left, and only the landlord and two lads remained at their posts. A room, indeed, was given me, but for the rest I had to provide for myself as best I could. The supply of provisions was scanty, wine and bread and cold sturgeon several days old. Food could not be got for love or money, to make a fire was forbidden, and only the samovar was lighted morning and evening. There was not even water for washing; all the *suchis*, who usually carry water round in the town, had gone on strike like the other men, and I washed myself in mineral water. Here drought prevailed as in a desert, though the sea raved in front.

At the "Frantsia" a Georgian prince was living; we became very good friends the first evening and supped together. He promised on his honour and conscience to lead me safe and sound through the forests of Georgia and over the Suram Pass to Tiflis. Evidently, however, he

was himself a robber chief in league with the agitators. But I declined, thanking him for his kindness, and was congratulated by my two Russian fellow-travellers, who took it for granted that I should soon have been stripped to the skin if I had accepted the offer. No; here there was no resource but patience—"Patience!" whispered the palms and magnolias in the strand boulevard; "Patience!" sang the surge on the sea—yea, an angel's patience was needed to extricate me from this wretched Batum.

On the first day, the last of October, we obtained a fairly clear idea of the situation, and it was evident that it was not of the nature of an ordinary strike easily to be suppressed by strict discipline and vigour, but a political insurrection of a very serious character. The town lay in a deep, deathlike trance, and, except for shots from fire-arms, all was silent and empty in the tiresome streets of cobbles, where the rumble of carriages and waggons usually is heard among the ugly monotonous rows of houses. All shops and business premises were closed with shutters, bars, and locks. A Georgian, who sold provisions secretly to his customers at a back door, received a written notice from the strike committee that he was condemned to death, and would be shot on the following day. By such threats, followed up by bloody deeds, exemplary obedience was ensured. The citizens remained in their houses, and only vagabonds, the scum of various nationalities, and spies were about; women were not to be seen, or only such as belonged to the dregs of society. Meetings and assemblies were forbidden, and only small groups of workmen appeared here and there. One looked in vain for a laden horse, an ass loaded with grapes, a fruit-seller or vegetable dealer, such as usually crowd the streets and lanes in Oriental towns, and at every five steps cry and praise their wares. If a carriage came along the driver was a soldier with his rifle ready to hand, and the passengers were officers. If horse-hoofs resounded on the stones, the riders were Cossacks armed to the teeth. All the public buildings were guarded by soldiers, and strong watches were posted both inside and outside the bank doors. When I asked the Georgian porter why the door of the hotel was

locked, even in the daytime, he replied that we might be attacked and murdered at any time if we were not in a state of defence. Here, too, stood some soldiers who answered shortly or not at all when they were spoken to.

Boys ten or twelve years old loitered about the streets; they seemed quite innocent, but in reality they were spies under the orders of the strike committee, sent out to report any infractions of their regulations. Even the foreign consulates were closed, and it was possible to get at the consuls only by back ways—at any rate such was the case with the two I visited. One of these was the Swedish consul, who had lately travelled to Tiflis to seek an antidote for the bite of a mad dog—evidently here all was in confusion. At Nobel's it was expected that the stores of petroleum might at any moment be set on fire and bombs thrown into the office, especially since orders were given to continue to supply kerosene to the authorities.

A merchant could not go to his office; if he did, he was reported by the boy spies, and was fortunate if he got off with all his window-panes broken and a severe blow on the head; or he received a letter ordering him to pay a certain sum of money if he wished to save his life. To go to the banks was considered exceedingly dangerous; one would probably be robbed on the way home. However, I drew some money from the Tiflis Commercial Bank and reached home without difficulty.

Besides the labour strikes, which, as regards the railway servants, aimed at a rise of the monthly pay from 25 to 35 roubles, the terrorists worked with untiring energy in furtherance of their own extremely far-reaching plans. They availed themselves of the general discontent and stirred up the ignorant masses by revolutionary talk at secret meetings. They declared that the Tsar was deposed, and that De Witte was president of the Russian republic. The people would now take the power into their own hands, all property would be equitably divided, the poor would have land and bread; tyranny, despotism, and slavery would be abolished. Such talk was received with stormy applause by the multitude, who saw the immediate

future gleaming in purple and gold. Every man you met might be a terrorist or his tool. Men regarded one another with suspicion; it was as though all the inhabitants of the town went in expectation of something extraordinary, something terrible, which would suddenly put an end to the injustice of the old time. In the countenances of the Caucasians of higher rank—mostly Georgians in fur caps and long, close-fitting coats with two rows of cartridge cases on the breast—could be read an expression of satisfaction. They were unmistakably delighted that the Russian authorities had such serious difficulties to contend with; they hoped for and expected the cessation of Russian supremacy over the formerly free Caucasus, and longed for a renewal of the immortal Schamil's glorious but hopeless fight for freedom.

The Governor issued an order that no one was to show himself outside after six o'clock—the pleasure was also doubtful, for on the pitch-dark streets one might be shot down anywhere. No civilian could go armed. If the terrorists suspected the possession of a revolver, they immediately came forward and confiscated the weapon for their own use; by this means they acquired a considerable supply of arms. Cossacks and soldiers had orders to seize all firearms which did not belong to the military. On October 31 eight people were murdered in Batum, including five soldiers, and a gendarme and fifteen persons were wounded. A police inspector on duty was attacked by a mob and was shot in the forehead, but was saved by the peak of his cap. He had sufficient presence of mind to fall off his horse and lie as though dead, or he would have received one or two more bullets. A hand-to-hand fight arose, which cost the lives of three of the combatants, while several were wounded. This occurred at noon. After a day or two one did not pay much heed to gunshots, though they made an uncomfortable impression when they were heard in the silence of night.

In the evening there was a terrible uproar in the Turkish bazaar. Some hundred Cossacks were firing under my window. One volley followed another, but mostly aimed in the air, so that only few persons were

1. Transport of Timber on the Way to Erzerum.

2. Turkish Village between Trebizond and Erzerum.

wounded, and then the place was cleared with whips. The same evening twenty cannon-shots were discharged from the squadron, thundering so that the windows rattled in their frames, a reminder of the power of Russia, and a threat of bombardment in case of bloody disturbances. The searchlights of the war vessels swept all night over the houses of the town; the façades turned towards the harbour were brilliantly illuminated; here and there a Turkish minaret glistened dazzling white above indistinct outlines. In horizontal rays these bluish-white shafts of light shot defiantly and searchingly over Batum — it was the armoured vessels fixing their spying eyes of fire and iron on the seething town. And thus the darkness in the dismal town of Batum was partly dispersed, at least in the streets parallel to the beams of light. A whistle broke on the stillness of the night; it was answered from a distance, and again, scarcely audible, from still farther off. Probably the officers in command were communicating with one another.

A shot cracked under my window, the sound of horses' hoofs died away, and all was again quiet. Had another man's life been lost? A peaceful Turk came hither from Trebizond on November 1, visited the Turkish bazaar, and was on his way to his night quarter. Two patrolling Cossacks rode past him in the twilight and called out *Stoi* (stop). The man quickened his steps, perhaps supposing that the word was an intimation to hurry on. A second and third summons had no effect. If a man did not obey after the third warning, the Cossacks had orders to shoot. Pierced by two bullets, the Turk fell dead in the street.

In the company of the Colonel and Consul I made the most of the days, and sometimes, out of pure curiosity, we took late strolls through the dark streets. With a Colonel in uniform it was not so dangerous. On the evening of November 1 we stayed longer than usual on a bench on the strand promenade, where a bed of coarse rounded pebbles slopes gently to the white margin of the surf. The sea elsewhere was calm, and some children were playing unconcernedly on the beach, in strong contrast to the state of siege in the disturbed city. The boulevard

was bright with almost tropical verdure; araucarias, magnolias, and palms gave it quite a southern aspect. The evening was fresh, the air clear and pure like the water; the crescent moon rose over Batum, struggling vainly against the darkness in the gloomy town. One star came out after another. The sun had sunk in a fiery glow over the level horizon of the sea beyond Trebizond, but it had still left an orange tint which was reflected in the waters of the Black Sea. Deep silence everywhere. A steamer moved slowly towards Trebizond, its outline standing out pitch black against the orange reflexion which fell on the waves—a strikingly fine and attractive spectacle which for a moment reconciled us to the situation in the inhospitable Batum. To the north was seen the crest of the Caucasus, airy and unreal as in a dream, a suggestion of light red hues; to the north-west the mountains grew fainter, like thinned-out mist. The sea was smooth as a mirror, the mountains were solemn as ghosts; not a breath of air was perceptible; the town seemed asleep; perfect peace surrounded us in this country where only man is vile.

Next day we witnessed a funeral. A *gorodovoi*, or policeman, had been shot, and was to be interred with military honours. A slight smoke of incense floated out of the open door of the little church, and the whole ceremony was veiled in mystic haziness. Without a flower to decorate it the silver-white coffin stood between burning candelabra, bearded priests and choristers, who in deep bass voice intoned the affecting funeral hymn "Hospodi pomilui." At length the service was over, and the man who fell at his post was to be carried to his grave. The procession set itself in motion. First marched an ecclesiastic with a large crucifix, another bore a wreath, the third and fourth held up holy banners, and then followed priests with small crosses in their hands, and after them came the coffin borne by superior officers, among whom was the Governor himself, General von Parkau. Behind the bier walked the mourners and friends of the deceased, a company of soldiers, and two musicians, who played solemn funeral marches — monotonous, melancholy, and truly

Russian; but sounding grand, touching, and beautiful in the quiet streets, where all life seemed numbed. At the end of the procession came a troop of mounted Cossacks, and on either side stood the staring crowds where I was. Who was the dead man? Did the sudden termination of his life imply expiation for some deadly sin he had committed? No; he was only one victim among thousands of an antiquated system which, indeed, like him, is on its way to the grave.

The Governor and other officers soon handed over the coffin to comrades of the deceased. A carriage was waiting at a street corner, the Governor got in with an aide-de-camp and drove off at a rapid pace, so quickly that only good marksmen could have hit them. Slowly and solemnly the funeral procession passed on through the streets; the plaintive tones of the music grew fainter and fainter, and at length the white uniforms disappeared in the distance.

General von Parkau was amiability personified, and displayed an admirable calmness amidst all the restlessness that surrounded him. His charming wife and attractive daughters, however, were in constant anxiety for his life, and did not leave him even when, overwhelmed with work, he retired to his office. He was one of the men who know how to fall at their posts with calm composure. He was much more exposed to danger than any one else; and during a great strike, military and civil officials, the powers opposed to anarchy and mob violence, are naturally the particular objects of detestation.

On November 3 there was at length an improvement in our captivity. I was awakened by noises in the streets; *izvoshchiks* and waggons were out, carts drawn by oxen rattled over the cobbles; travellers, traders, and water-carriers were about; Persians roved about with mats on their backs; Tatars offered their wares in portable samples; Georgians sold grapes, water-melons, and other fruit, and extolled their goods with shrill cries; beggars were more numerous than usual,—all seemed happy and contented, weary as they were of this useless *zabastovka* or strike. The hotel restaurant was full of customers, who took their

places at the tables on the pavement under the awning to enjoy the renewed life and motion, which, under the circumstances, was more attractive than any carnival. Unfortunately, this day happened to be a *prazdnik*, the anniversary of the Tsar's accession to the throne, and what was worse was that next day was one of the great church festivals, the Kazanski Ikoni Bozhe Materi, and the following day was Sunday. It was absurd that three holidays should immediately follow six days of strike. Many tradesmen, however, kept their shops open, and anything wanted could be obtained. All Batum was beflagged, and the garrison marched with flying colours and lively music to divine service to celebrate the day. But what was of most importance to us, the railway was still in the same forlorn state as before, and no one had any notion when a train would depart for Tiflis. Certainly we could now drive about and observe the exhibition of different types of Caucasian and Levantine peoples who moved through the streets, the beauty prize being deserved by the tall, broad-shouldered, graceful Georgians and Imeretians in their becoming costumes, which did full justice to the harmonious lines of the figure. And we could sit and enjoy the odour of the luxuriant vegetation which flourished round the pools in the Alexanderski Sad, where in the warm air the dark-green cypresses stood out in sharp outline against a cloudless sky.

But our only wish was to get to Tiflis, and still the railway station remained empty and desolate, constantly guarded by soldiers. The bridge over the Rion was blown up and the rails torn up at several places. One contingent of navvies after another was despatched from Batum and Tiflis to repair the line, but while work was proceeding in one section the rails were pulled up in another. When a long military train was sent off from Kutais for Poti it ran off the track before it reached the next station. Twenty-three persons were killed or severely injured. The damage here done to the line was cunningly contrived. The rails were left, and everything appeared to be in perfect order, but the iron bolts which held the rails to the sleepers had been removed. The engine and some

3. Ox-carts outside Trebizond.

of the carriages passed unharmed, but the rest of the train was broken into splinters.

Under such circumstances the journey to Tiflis could not be particularly pleasant, but still we were quite determined to travel thither. Reports came in daily of parties of engineers having been attacked at their work by rebels, and of bloody collisions. The first train despatched to Tiflis was to be accompanied by a strong escort, and it was reported that 5000 men had been sent from Tiflis to guard the line.

On the evening of November 4 I again paid a visit to the Governor, who informed me that a train would probably start in three days, but that it would be long on the way, and that changes of trains were unavoidable with all the damaged sections and blown-up bridges. For greater certainty he telephoned to the chief engineer of the railway, and learned that the connection between Poti and Kutais was clear, and that one could probably travel on from Kutais to Tiflis.

I decided at once to go to Poti by the steamer which started the same evening for Odessa, and the Governor kindly furnished me with an order permitting me to travel in the first military train from Poti. I hurriedly sought out my two Russian fellow-travellers, and we had but just time to get our things together, pay the bill, and go on board, before the steamer made its way out to the dark sea.

CHAPTER II

ANARCHY ON THE COLCHIS COAST

In pouring rain and pitchy darkness we landed in the middle of the night at Poti. Here, at any rate, we found carriages. My fellow-travellers drove into the town, which is a mile and a quarter from the pier, but I had to get out my heavy baggage, weighing 770 lbs., and see it under cover in a warehouse before I could follow them. The rain pelted against the hood and splashed in the mud; we passed safely the two bridges over the Rion, but when we drove into the first street my carriage was stopped by Cossacks, who looked at me suspiciously, and would not let me proceed till after a rigorous identification according to the regulations. All the hotels were overflowing with visitors who were waiting for an opportunity to take train for Tiflis, and it was not till nearly morning that we found a miserable room in the "Yevropeiskiya Nomera," a fourth-class hotel, which should rather be called "The Asiatic Apartments." Kept by Georgian speculators, it is surrounded on all sides by water, and a small bridge communicates with the street, an ordinary country road, with a cobblestone here and there. Fortunately, the streets are somewhat raised above the adjoining ground, and provided with gutters, so that the water runs off. But the houses on either side stand in marshes and pools, and the gardens, in particular, stand under water. If one did not know it, one would suspect that this town must be a fever haunt. In summer rain is less frequent; but the air is then heavy with moisture, mist, and warm miasma.

Our hotel, indeed, was an island, and cows in the

garden grazed up to their knees in water. The house was of one storey with a floor on a level with the ground, so that the rooms were damp, musty, and fusty. Now the rain gathered into rivulets, pools and marshes spread out between the houses, and it was impossible to take a walk. Without the fiacres with their round hoods one could not go out. Galoshes and umbrellas must have an extraordinary sale in this puddle of a town—poor men who are obliged to live in this muddle! The whole town of Poti is stupidly and unpractically arranged. It stands too far from the steamboat pier, which is exceedingly inconvenient for travellers who land at one o'clock in the morning, and still worse for those who have to embark. I must frankly confess that I cannot understand how they endure it. They have to encamp in the waiting-room amidst Caucasian ruffians, for the steamer waits only an hour when it has not a large cargo, and in the town no information is obtainable about the times of arrival and departure.

Between the town and the pier the Rion flows to the sea, divided into two swollen branches, which are crossed by two wooden bridges simply dangerous for both man and beast. Their planks are rotten and soft as cork, corroded as they are by sun and rain alternately. Here and there half a plank is wanting, and through the gap the river is seen rolling down its muddy water. It is a serious matter to put one's foot in such a hole when it is pitch dark, and, besides, one may fall through anywhere in this rotten structure. How our driver got safely over at night is inconceivable; the horses perhaps see the holes—but the wheels! The bridges are far better in China and India, but a great part of this wretched state of affairs may perhaps be ascribed to the strike.

We stayed four days in this infernal hole, in the company of rats as large as rabbits. We kept up our courage, and were in excellent spirits in spite of coarse fare. Now the Colonel and then the Consul succeeded in hunting up a box of sardines, a sausage, or a bottle of red wine, and we lived much as war correspondents in a campaign where they have to put up with anything they can get hold of. I had the advantage of again obtaining a good lesson in

Russian, but the other two men probably did not learn a single word of Swedish all the time.

On the afternoon of the 5th we attended an assembly with dancing at the club for the benefit of the town school, which has no other resources but a subsidy of two hundred roubles from the State. Here were to be seen specimens of Poti citizens, officers, Russian civilians, worn and ill both in body and soul, and countrymen, Georgians, Gurians, Imeretians, Mingrelians, Abkhazians, Armenians, etc. Natives were most numerous, Russians comparatively few. The picturesque Georgian dances, with their peculiar rapid and pliant movements, were executed to the strains of strange and monotonous music. A gentleman and a lady, fair as an angel, danced together; she skimmed noiselessly as a sylph over the floor, raising herself on her toes as she flew on with inconceivable rapidity—she seemed not to move her legs and feet but to glide smoothly along, holding her hands to her sides, and bearing her head nobly and gracefully like a queen of the Caucasus. The cavalier followed her with coaxing and inviting gestures, while she always retreated and avoided him. The spectators clapped their hands and kept the time, urging on the dancers to greater speed and endurance. They amused themselves as well as they could, the poor creatures who were deported to Poti, but their dance was splendid to look at, and in comparison European dances are by no means artistic displays of plastic grace. Characteristic of such a genuine Russian *sobranye* evening were the loud screaming at the buffet, the ring of glasses filled with red wine, beer, or *vodka*, the polluted and overheated air, the hermetically closed windows, which jealously separated us from the autumn air outside.

On Nov. 6 we were thoroughly roused by a tremendous downpour of rain, with thunder and lightning. One clap was so violent that the Colonel started and exclaimed, "A bomb." The sky was covered with dense masses of cloud, which came drifting over Poti in leaden-grey and dark-blue cumuli, discharging shower after shower, so that the pools incessantly increased in size. We drove down to the harbour and watched the waves break over the

mole. Here lay five Russian vessels fully laden, but lifeless and deserted, for no one would unload them, and the goods could not be forwarded. A huge heap of chests, sacks, and bales was piled up at the harbour, enough to fill 500 trucks. A large part consisted of flour and sugar, which was quite spoiled, and was washed away, to the great loss of the merchants and the delight of the workmen on strike.

The stationmaster at Poti, Lopatin, married to an amiable Swedish woman, was the only railway employé who remained at his post when all the rest struck; but he lived in a constant state of siege, and his life was threatened—it was touching to see his wife's anxiety for his safety, and she had good reason for it, for four stationmasters had been murdered between Poti and Tiflis. Lopatin advised us to wait; he believed that a strong military train would come from Tiflis within two days, and he could send us to Samtredi at any time; so far the way was clear.

At mid-day on Nov. 8 I paid my usual visit to Lopatin. A soldier directed me to an adjacent warehouse where the railway men were holding a meeting, which had already lasted more than four hours. It was quite entertaining to listen to their political discussions. The most absurd propositions for the distribution of all property and power were set forth, defended and applauded. My friend Lopatin was the object of a violent attack because he had not joined in the general strike, and a fearless partisan proposed that he should be killed forthwith. But another speaker undertook his defence, calling to mind that Lopatin had always been well disposed towards the workmen. At the meeting an old strike-breaker came forward and showed a laconic threatening letter he had received—a sketch of a coffin, declaring that he would not be daunted by anything of the kind. Lastly, two Georgians spoke in their native tongue, of which speeches I understood nothing but adopted words, such as revolution, liberal party, politics, autonomy, social democracy, with other strong and expressive terms. The more the speech was interspersed with them, the louder the cries of hurrah and

bravo, which at times were quite deafening, although the poor men ought to have been tired after being here four hours. It was dark and stuffy in the warehouse, the floor of which was strewn with straw; only the listeners who stood nearest to the two entrances were in the light, while the rest were hidden in almost subterranean darkness. The audience was mixed—wild Caucasian types, hot-headed Russians, Armenians, and Tatars. The discussion was, to say the least, still lively when we left the meeting, and no resolution could be agreed upon except that no work was to be done.

Lopatin had little comforting information to give us that day. The revolutionary disturbances seemed to be developing into a civil war. A detachment of 150 Cossacks had been surrounded by 2000 well-armed Georgians at Osurgeti. The commander of the small troop tried to send off a messenger to Batum with a request for assistance. The horseman did not get through. Another was sent off and was caught; a third and fourth disappeared. The fifth messenger, a Musulman, creeping through the twilight, succeeded in breaking through the blockade and escaped safely to Batum. Two hundred men with four machine guns had just been sent off from Poti to reinforce the Cossacks. My friend the Colonel considered their undertaking desperate, as they would have to force their way through narrow passes and defiles, where they could be shot at from above by marksmen scattered and hidden in the woods, and where they would be picked off, one after another, without being able to defend themselves. From time to time small parties of navvies were constantly attacked as they were repairing various sections of the line, and every attack cost the lives of some soldiers —a real guerilla war!

Meanwhile we took counsel about the roads which were open to us—or more correctly closed—to Teheran. To wait till traffic was restored on the Poti-Tiflis-Erivan line seemed hopeless, especially after the railway on this side of Samtredi was again torn up. How would it be to travel through Novorossisk, Vladikavkaz, and the Georgian military road, or to Petrovsk and Baku? No; probably a

4. A Halting-place in the Highlands of Armenia.

strike was in progress there also. The Colonel suggested that we could ride from Batum to Artvin and Kars and on along the frontier to Erivan, but some Georgians most emphatically opposed this plan, for we might be quite certain that we should be plundered by robbers, who in this unsettled time were more active than usual. There was no danger to our lives, but where should I be without my instrument-case and cash-box? To come back a pillaged ragamuffin to Batum would be romantic and exciting, but I had no time for rash experiments.

I made up my mind in a hurry to turn my back by some means or other on this unfriendly coast, make for Trebizond, and take the route through Erzerum, Bayazid, Khoi, and Tabriz to Teheran. Even this road was unsafe, but secure compared to the Caucasus; the journey would take three weeks longer than by the road through Erivan, but I should have an opportunity of seeing Turkish Armenia, the mountains of Asia Minor, and the majestic Ararat.

What I had to do, then, was to sail to Trebizond with some proper passports. I had made no preparations in Constantinople for this route—I had no need, for I never thought of entering Asiatic Turkey. Fortunately, the Swedish Minister, Baron Ramel, had introduced me to the Minister for Foreign Affairs, Tewfik Pasha, and the Grand Vizier, Ferid Pasha, who therefore knew me and were aware that I was not dangerous to the Crescent and the Sublime Porte.

I hastened to the steamboat office in Poti to inquire when the next boat would sail for Batum. The agent had no notion; he no longer received telegrams, and believed that traffic was stopped in consequence of the strikes. While we were talking an employé announced that the steamer *Alexei* had just entered the harbour. We hurried down. The captain, a jolly sea-dog, reported disturbances in Odessa and other towns. He was going to lie at anchor during the night so as to enter the harbour of Batum by daylight, and after I had sent all my baggage on board I had plenty of leisure to dine for the last time with my two Russian fellow-travellers, who intended to try

their luck on the route through Novorossisk. I went on board in the dusk and made acquaintance with the only passengers on the vessel: a colonel of Don Cossacks of huge dimensions—according to his own statement he weighed 9½ pud (24½ stones), nearly half the weight of my baggage; and a Greek merchant who had had twelve trucksful of goods stolen on the way from Poti to Tiflis. At the same time we heard that a fresh strike had broken out at Batum, and that the state of affairs was worse than ever. The Governor had put the fortress in a state of defence, and the garrison was raised to its full strength when the insurgents threatened to proceed to extremities. Several salvos had been discharged seawards to show that all was ready for the worst. Riots and murders in the streets were of daily occurrence, and no one was safe.

November 9. At length the hour of release had struck, and I was to leave Russian territory and betake myself to more peaceful surroundings, among Turks, Armenians, and Persians. The signal of departure woke me, the engines began to work, and Poti disappeared behind us. For a second time I was on my way southwards to Batum, without a notion how and when I could leave this wasps' nest. The captain suggested that I should try to hire some foreign vessel lying up at Batum, and he took upon himself with pleasure the task of sending me on. He expected that the expenses would mount up to 500 roubles (about £50), and I considered it a moderate price for getting safely out of Russian harbours. It would at any rate be a new experience to sail my own vessel on the Black Sea, and I had already made up my mind to invite any one who would like to go with me,—Turks and Armenians eager to go home, Europeans wishing to get away, vagabonds, robbers, and rogues,—it was to be a voyage of a motley crew of Argonauts on the Colchis coast. I should be able to get hold of some small Turkish coasting steamer, or at worst an open boat under the Turkish flag, of the kind which transports, at low fares, goods and passengers, who have plenty of time to spare, from town to town along the coast of Asia Minor to the west of Anatolia. Such a voyage may be dangerous in a

northerly storm, but that was impossible when the weather was as calm as now. In a week all might be got ready, but I would have the vessel cleared of vermin, set up a tent on the after-deck, and sail smoothly towards the sunset.

We glided into the harbour of Batum, where many vessels lay idle, and the town was bathed in sunlight, and looked peaceful and contented. How long should I have to stay there? Under ordinary circumstances one of the Austrian Lloyd's boats calls on Thursdays, and starts again on Friday evening, but now I learned that during the strike most foreign vessels did not come beyond Trebizond, and I should have to wait at Batum till Monday week, eleven days in all, when a Russian boat started for Constantinople. An agent came on board and reported that the workmen had proclaimed an implacable strike because troops had been concentrated at Batum. No work was to be recommenced until they were removed. It was demanded that the guards should be removed from the banks, that the fort should be evacuated, nay, more, a general massacre of the citizens of Batum was threatened if the men did not get their way. It was said that the citizens meditated an escape to the Turkish coast on an English steamer. All the hotels were closed—a pleasant outlook—one could not move about the streets, and I was just wondering whether I should take up my quarters at Nobel's office or apply to the Governor, when the *Alexei* swept gently past an Austrian vessel, the *Saturno*, and the Greek merchant, recognising the Austrian Lloyd's agent on the deck, called out to him as we passed by, "When do you sail, and whither?"

"In two hours, for Trebizond."

These words affected me like an electric shock. I must at any price travel with it; and I had no passport for Turkey. I rushed on foot—of course there were no droskies—to the Austrian consulate, to the police station, where I obtained a Russian visa for my passport, to the Russian steamboat office, to the Austrian Lloyd's office, where the information overwhelmed me like a cold douche that, according to a Russian police regulation, the *Saturno* was not allowed to take passengers. I adjured the agent,

a gentleman whose nationality was mysterious, by all the infernal powers to allow me to go. He yielded, and promised to try to procure special permission from the police, but he advised me to make haste, as it was only half-an-hour before the steamer started. If the police refused I must submit to my fate. Then I hurried to the pier, casting a glance as I went by at my old prison, the Hotel Frantsia, where all the windows were closed with shutters.

How was I to get my heavy luggage on board the Austrian when not a cat was at work in this wretched harbour? The captain of the *Alexei* was a worthy man; he had a boat lowered from the davits, and in a few minutes I saw my valuable baggage dangling between the sky and water and then stowed in the yawl, where I took my place on the top of a chest and was rowed on the high swell by strong arms to the gangway of the *Saturno*, just when the signal was given for starting. "Row for your lives; you shall have a tip of 10 roubles if you bring my boxes on board in time." The boat rose and sank amid the waves, and it was an acrobatic feat to hoist the heavy baggage on to the steps of the *Saturno*. Just then the captain appeared, a rough weather-beaten sea-dog, and bade me go to h—l. I asked politely what he meant.

"We take no passengers here; go away," he roared, and went off. Availing myself of his absence I let the sailors carry my baggage up to the deck, gave them the reward I had promised, and told them to put out from the *Saturno's* gangway as quickly as possible, and then I felt quite certain that I could be put overboard again only with a crane. I expected a hot encounter when the sea-bear, surly and haughty as a dictator, came stamping along the deck and yelled:

"Oh, you are here; I can put you ashore again."

"My papers are correct," I informed him.

"Let me see them." He looked at the passport and other slips, and burst out with, "Well, you are authorized to come with us, but you have no visa from the Turkish consul, and cannot go ashore at Trebizond, but that is your own affair."

"If I only get to Trebizond I can look out for myself.

The great thing is to get away safely from Batum. I have telegraphed to the Swedish Minister in Constantinople, and am already vouched for in Trebizond."

In my inmost soul I saw before me no end of troubles with Turkish customs officers, who just at that time must be very particular with vessels from disturbed Russia, but I kept a bold face and answered quietly, "Geographical exploration," when the captain asked me the object of my journey.

"That is unnecessary," he declared; "much better collect stamps as I do."

"Then I can accommodate you with some Persian stamps I bought from a Greek in Batum; will you look at them?"

"Certainly." He chose out those that he did not possess, and asked if he could buy them.

"No; but you may have them as a present in remembrance of me." In five minutes we were friends for life, the captain of the *Saturno* and I; a first-class deck cabin was assigned to me, 6 roubles were paid for the ticket—I saved 494 roubles and ten days in time; two Turks, whose passports were not in order, were taken ashore, and the steamer glided out of the harbour, leaving a white and light-green wake behind it. With a feeling of freedom and satisfaction I saw the façades, minarets, and churches of Batum sink below the horizon, and before us, to the south-west, the coast of Asia Minor stretching out to an endless distance.

CHAPTER III

TREBIZOND

The *Saturno* was really a miserable cargo vessel from Triest, an old halting camel compared to the splendid Russian boats from Odessa. But I blessed this vessel which, puffing and panting, carried me to freedom, to the Turks, to the land of the Turkish dogs where, in these days, singular as it may sound, there was greater security than among the Russians. The boat had reached Batum in the morning, but prepared to return immediately, when it was found that no business could be done. It only stayed two hours, just at the time when I needed help. Now it was returning to Trebizond to load up and was to remain there two days, so that I had more than enough time to set my affairs in order.

At six o'clock we took dinner in the stern saloon, three of us, the captain, myself, and an old Turkish gentleman. The sea was quiet, the moon shone cheerfully among light clouds and spread a bright track over the surface of the Black Sea. On either side of the wake was seen a whole school of porpoises, which made gentle and elegant somersaults above the surface of the water or followed the vessel for hours in hopes of food. One could plainly discern the dark back of the porpoise through the clear water when he came up from below to roll over on the top and let his back shine like metal in the moonlight. The air was soft, not the faintest breeze rippled the waters. We were close to the land, and the mountains showed a bluish-grey outline under the moon;

5. My Carriage on the Road from Trebizond.

6. A Man of the Escort.

here and there a peak already covered with snow overtopped the dark heights.

Late in the evening the *Saturno* dropped her anchor before the small coast town of Rize, the lights of which glimmered in a small recess in the line of mountains. The white surf beat monotonously against the beach, the vessel rose and fell slowly, the rudder banged and banged so that the whole hull trembled, which did not tend to lull light sleepers to rest.

Next day at the hour of starting we could enjoy the picturesque panorama presented by Rize and its surrounding heights. The centre of the life of the town seemed to be the strand road where the white two-storeyed houses, with red-tiled roofs sloping to the four sides, lay thickest. Here several boats were drawn up on land, most of them small fishing-boats, but also larger sailing boats with one or two masts; some of these were also anchored in the roadstead, and a whole flotilla of small boats were out fishing more than a mile from the coast. The greater the distance from the strand road, the more scattered are the houses, but they are seen right up to the summit of the ridge where they are perched like swallows' nests among the vegetation and turn their northern fronts to the sea; from the uppermost the view must be magnificent, but it is a hard pull up there. And the charming picture is framed in lofty mountains clothed with bright white snowfields.

Then we steered westwards. This coast, which I had skirted twice before, in 1886 and 1890, is very uniform, a series of elevations with rather a steep fall to the sea, seldom broken by lowland, but often by valley mouths. On the flanks and by the shore are seen lonely farms and woods interrupted, even high up on the slopes, by patches of tilled land. Here and there greyish-blue smoke rises from a chimney. Three hours passed by. A solitary sailing vessel was waiting for a wind. The mountains were lower than before, we again approached the coast and made straight for Trebizond, the haven where we would be, though it was not yet visible, for the air was hazy. A little later the eastern end of the town, built in an amphitheatre,

presented itself to our view, with its huge hunched mountain in the background and its steep promontory. Two steamers lay at anchor; a swarm of rowing-boats made for the *Saturno*; it was like a regatta, a rowing match; the water spurted up round the blunt bows of these motley-painted boats with their broad benches and large half-decks fore and aft, and narrow oars balanced with weights in the handles. Their crews climbed up to the gangway and then were on board in a moment.

Last of all appeared the shipping agent and advised me to wait till next morning—after dusk no one may go ashore. But I did not listen, and taking a handbag had myself rowed to the customs pavilion. Here I fell into the hands of a party of Turks in uniform who gesticulated, talked one another down, regarded my passport as highly unsatisfactory, and at last sent for a police officer who treated me much as if I had come from a pest-smitten port. In Jaggatai Turkish I related the varying fortunes which had brought me to Trebizond against my will, mentioned my acquaintance with Tewfik Pasha and the great Osman Pasha—Allah bless his soul!—and several other illustrious pashas, and declared that I occasionally dined at the table of Abdul Hamid in Yildiz Kiosk. Their faces grew longer and longer, but nothing impressed them more than my intimate acquaintance with Temir Bash, Charles XII., and that was not the first time his name had saved me in the East. I obtained permission to pass the night on shore, after my handbag had been searched even to the tooth-brush, and two romances by Daudet and Coppée and a map of Persia were seized for examination by the censor.

A little later I sat talking with the French consul, the amiable M. Colomb, who advised me not to fetch my baggage from the steamer before an answer to my last telegram had arrived from Constantinople, for the customs officials were dreadful and laid hands on everything suspicious, and thought everything suspicious which they did not understand. He also advised me not to travel to Erzerum without an escort, for the road was too unsafe, and two Capuchin fathers had quite recently been robbed on their return from that town.

Old Trapezus was a colony founded in the seventh century B.C. by Greeks of Sinope, and the town, which thus has illustrious antecedents, has in the course of thousands of years passed through the most various fortunes, tossed to and fro among peoples and princes who sprang up, flourished, and vanished from the stage. In the time of Hadrian there was no town on the Pontus Euxinus which could rival it in size, and Trebizond has also been the capital of an empire. Before the Russians conquered the Caucasus and laid the Trans-Caucasian railway between Batum and Baku, Trebizond was the terminus of the most important line of communication between Persia and the West, but in our days, owing to Russian competition, like the trade-route through Erzerum, has declined. Still the Tarabuzun of the Turks, the Trabysos of the Greeks, the Trébisonde of the French, the Trebisonda of the Italians, the Trapezunt of the Germans, Trabezon, Trabizum, Tirabson, or whatever else it is called, this town of the Princess of Trebizond, is even now the seat of a Governor-General, and is considered the most important commercial town in Asiatic Turkey after Smyrna. Amidst this densely packed mosaic of wooden houses rises an old fortress on a point, and still a number of churches remind one of Christian times, which after the Turkish conquest were converted into mosques. There are several modern churches, American and Catholic missionaries, and a convent with a girls' school. The population is said to number 60,000,—Turks, Greeks, Armenians, Lazes, and foreigners,—but this figure is probably too large. France, Persia, Russia, England, America, and Austria maintain consuls in the town. During the disturbed state of the Caucasus, and especially in consequence of the railway strike, Trebizond was rejoicing in a temporary prosperity, for the goods which could not be unloaded at Batum were mostly transported through Trebizond and Erzerum. But even in ordinary circumstances cotton goods and other manufactures, cloths, wool, tea, silver, velvet, etc., are imported into Persia, and from Persia mats, shawls, silk, raisins, etc., are brought.

When I went home in the dusk to the Hôtel de Suisse,

kept by a young Frenchwoman married to a decent Greek named Polikandrioti, I heard the well-known sound of camel bells under my window—a caravan was starting for its first night encampment on the long road to the land of the lion and the sun. Then lamps were lighted round the minaret balconies, the muezzin called out his melancholy high-pitched "La illaha il Allah" in the peaceful evening of Ramazan, and life and movement increased in the streets; it was pleasant to see honest, industrious, and loyal men, open shops and inns, where Mohammedans gathered for the evening meal after a cannon-shot had announced that the day's fast was ended, and that the sun had sunk.

It was late at night when the lamps were extinguished and life ceased in Trebizond, and over the slumbering town the lofty crest of Kolat-dagh kept watch, while the river Muchka poured its turbid water into the Mavri Thalassa, the Black Sea. I finished a letter to my home, and experienced a delightful feeling of freedom, which was wanting on the Caucasian coast. Round about me whispered memories of nights in the far-off centuries; of the Argonauts' legendary voyage, and of the enterprising Greeks' fight on the shore; of the Roman, Chaldean, and Byzantine periods, of thrones and crowns overturned and rolled in the dust; of the days of the Comneni, the glory of which was eclipsed by the crusaders, but revived again in Trebizond, only to sink for ever when the victorious crescent, 450 years ago, raised its horn above the horizon of Trebizond. The sound of a bell in the night recalled me to the passing moment within the bounds of the famous town. I had for two weeks sought in vain a starting-point from the Caucasian coast; and now at last I had set my foot firmly on the margin of the continent. In my mind I saw before me the winding road to India, heard the cart-wheels groan over the Armenian mountains and the bells ring monotonously in time with the camels' steps through the land of the Medes and Persians. My goal was Nushki, the extreme tentacle of the English railway in Baluchistan, and to reach it I must travel 2300 miles overland. From Trebizond one can drive all the way to Teheran, a trifle of about 810 miles, but from Teheran I

must ride on camels and dromedaries the remaining 1490 miles. It was, then, a long journey from Trebizond, but I rejoiced at the prospect of seeing parts of Persia where I had never been before, and of crossing the great desert which Alexander, Marco Polo, and Nadir Shah had made famous.

While Polikandrioti undertook to look after all necessary purchases,—a Caucasian *burkha*, or black cape, a *bashlik*, felt cloths and bedclothes, provisions for a month, preserved meats, bread, tea, sugar, cooking utensils, tobacco, etc.,—I made arrangements with a driver to hold ready at my door in two days a carriage and a cart and take me to Erzerum for a payment of 16 Turkish pounds, or £10 : 16s. I had a message from M. Colomb that the Vali, or Governor-General, of the Trebizond vilayet, Mehemed Reshad, had received orders from Tewfik Pasha to facilitate my journey by all means in his power, and, accompanied by the consul, I afterwards paid a visit to the Vali's office, a very curious little open pavilion at a street corner, where all the gusts of wind and loiterers could look in without hindrance. The Vali was an elderly man with a grey-streaked beard, pince-nez, fez, and European dress, and inspired by the most friendly feeling. In the order he had received from his chief not a word was said about exemption from customs dues, and therefore he had no authority to let my baggage through, but he advised me to telegraph once more to the Swedish Minister. I was to have two trustworthy soldiers as an escort on the way to Erzerum, and a special passport was to be prepared, and all officials along my route would be instructed to grovel before me as I came rattling along with my vehicles.

I had for the present to exercise patience, and I visited the English consul, Mr. Longworth, an elderly, corpulent, and genial bachelor, in an elegant palace, went a drive in the town and through the crowded alleys of the bazaar, and looked in at some of the well-stocked shops where European visitors find nearly everything necessary for a long journey. Trebizond makes an agreeable impression, thanks to its fine natural situation, its picturesque street scenes, and its varied life full of Oriental colouring and

changing aspects. Nearly everywhere the ground slopes to the shore, and the streets are therefore neat and clean; mud is not formed by the rain water. The principal street leads from the meidan, or market-place, up to the French consulate, and still farther up the hills. Some of the lanes have no pavement, and others are defectively paved with large flat stone slabs. From many of the fine houses there is a grand view over the town, its fortified promontory and its bay, Platana, where vessels obtain some shelter when the sea is lashed by a northerly storm.

After a pleasant and happy dinner with M. Colomb, whose wife and daughter are as amiable as all other Frenchwomen, and after waiting another day in vain for the order from the Grand Vizier, who perhaps was tired of being dunned by five telegrams, I let my baggage go the usual course through the hands of the customs officials, procured a Persian visa for my passport, took leave of my new friends, and made all ready for a start on the following morning.

To begin a journey on the Monday, which happened to be the 13th, might seem rash to many people; but the morning was bright and warm, I put on my travelling costume, took out my photographing apparatus, felt rugs, and knapsack which I might want on the way, and had all the other things secured with stout ropes on the waggon. As soon as it was ready it was sent on in front. A crowd of curious spectators collected on the meidan outside the hotel when I, attended by the Governor-General's dragoman, took my seat in his drosky and rolled away over the market-place, through the eastern quarter of the town, and past a burial-ground under dark venerable cypresses; here the burial-ground is changed every ten years, whether from prejudice or for hygienic reasons I do not know. Two of the smarter cemeteries are occupied by bodies which are not disturbed as long as the nearest relatives survive.

Our road ran along the shore; two newly-arrived steamboats had dropped anchor in the roadstead, and boats were constantly passing to and fro between them and the shore. Large lighters are called *maóna*, the smaller rowing-boats *kayik*; *yelken-gemisi* are two-masters for

7. The Baggage Cart.

8. Stone Bridge where the Road diverges into a Side Valley.

coast traffic, and *sandal* are small sailing-boats. The houses of Trebizond grew more and more scattered, the road turned away from the shore again, the busy marine spectacle vanished behind us, and the murmur of the waves died away, wishing me a lucky journey to the heart of Asia, and I wondered when I should next behold a seascape.

At Degermen-dere, or "mill village," I parted from the dragoman and mounted my own carriage. In rapid course we drove along the excellent macadamized road which mounts the left side of the river valley towards the south. Now for the first time I was alone and on the road; in front the whole of vast Asia awaited me, which was to retain me for three years and three months. A succession of unknown adventures and grand plans lay before me,—Armenia, Persia, Seistan, Baluchistan, Tibet, burning India, frozen Siberia, the rising sun of Japan, Korea, Manchuria,—it was to be a tremendous journey if all went well—that I knew; and the red line of my route would, like a lasso, involve in its loops the last great secrets of the continent. My pilgrimage commenced to the melodious murmur of the breakers of the Black Sea. How many winters' snows would melt away on undiscovered heights in the mysterious land—"Trans-Himalaya"—before the day dawned when in the farthest east I should see the sun rise like a ball of fire from the bosom of the Pacific Ocean?

CHAPTER IV

A DRIVE OF 800 MILES

With whistles and clicks of the tongue the driver urges his horses up the winding road through the valley, where the river flows in several arms through the flat gravelly bottom, with a few willows on the bank and green hillocks on the sides. The traffic is lively; we meet horse caravans carrying charcoal to the town, peasants with horses and asses, beggars, travellers, riders, soldiers, veiled women in large-blue-and-white-spotted gowns; a party of *hammals* in rags are on their way to their native villages after having saved up their earnings as porters in Constantinople. Here and there we whiz past an open fruit-booth where apples, pears, and grapes are offered for sale, or a *kavekhaneh*, or coffee-house, where the weary traveller can rest and take refreshments. The valley becomes more contracted; on the right side a steep path runs up to solitary huts hanging like storks' nests over the valley. At Haji Mehemed a wooden bridge spans the river. The road rises more and more above the valley bottom and its roaring stream, which carries down somewhere about 200 cubic feet per second. In a drosky we meet an Armenian priest riding with his wife and child. The country opens out a little, the view becomes more extensive, and in a gap in front of us appears the first snow-clad ridge. Where a bend in the river threatens to undermine the road a stone breastwork is constructed, and where debris may fall from the slopes above the road is protected by walls. Here and there workmen are engaged in repairs and improvements—evidently everything is done to keep

this important artery in good condition. Flocks of black, white, or brown sheep are driven to pasture among isolated farms, and horse caravans are laden with tiles from some neighbouring brickyard. Already fezes are less common than in Trebizond; instead, the country people wear black bandages round the head, or a combination of fez and turban. Their clothes are dark, red, black, or brown; the trousers are close-fitting at the ankles, but puffed out elsewhere and roomy as bags—especially behind. Through thin woods of coniferous and foliaged trees we drive past the farms and watchhouse of Aivasil, and leave on the left hand Möörchi with lofty cypresses above the graves and an arched bridge of stone over a brook. In the open booths of the village, on logs and terraces, Turks sit idle, longing for their supper, while children are carelessly transgressing the precepts of the Koran. The river flows on, now calm and silent, now roaring in white cascades. Among the soil-covered hillocks insignificant threads of water make their way to the main stream. On the right side a path runs up a lateral valley to the village of Larkhan. At the mouth of another valley stands Hesir-ogli with its stone bridge. Here the road is absolutely blocked by an endless flock of sheep which are being driven down to Trebizond, there to be embarked for sale in the meat markets of Constantinople. The shepherds lead large wolf-like dogs in leashes.

Among the passers-by may be noticed Turks, Kurds, and Armenians, brown, bearded, and ragged; but the traffic thins out the farther we leave the coast and Trebizond, the focus of this part of Asia Minor, behind us. Matarajik is a picturesquely situated village with caravanserais, forges, and large open stables, where caravans from Persia are wont to rest—it is reckoned a stage from here to Trebizond. The village stands on a slope, so that the fronts of the houses rest on stone piles while the backs are on the ground. The stone foundation is solid, but the house itself, of wood, is often ready to fall, and is generally roofed with shingles. On the walls outside tobacco leaves hang up to dry. The staircase leading to the upper storey is erected outside the house. An

excellent stone bridge of one arch spans the stream, and at the bridge-head on the right bank is the burial-ground of the village, with two solitary cypresses. Small patches of arable land are ploughed with oxen, and sowing is already commenced.

The valley is now narrow and winding, the river rages among fallen blocks, and from the village Ganni-pellet the road makes a steep zigzag up the slope. High up on the other side grazing sheep appear like small spots, and through a gap in the direction of the valley is what seems to be the Black Sea, but it is not clearly perceptible. We mount up and the murmur of the stream grows fainter. One rivulet after another springs out beside the road, its opening covered by a small stone arch. On the left side of the valley stand steep walls of rock. A village of scattered homesteads is called Attli-killsa, and Jevislik consists of a single street, where many smiths and farriers repair the shoes of passing horses. A string of horses, laden with boards, is just going down to Trebizond. A small poor minaret rises above the village.

In Jevislik we stayed for the night. Several of the houses have quite a European appearance, white-washed, provided with solid six-paned windows and shingle roof. From my window in the inn I had a view over the valley and river, the roar of which drowned all other sounds. In the room placed at my disposal were two iron bedsteads, but Turkish mattresses are always suspicious, and I preferred my tent-bed. When one sees Turkish families come jolting up in their fully-packed waggons, and then turn with all their belongings into the rest-house (*khan*), one can imagine the influx of vermin that takes place. In summer the place must swarm with them, especially the kind that frequents walls and beds. But in the cool of winter one has peace, and I came well off, without any loss of blood worth speaking of.

The driver is also my cook, and sets before me excellent pillau, rice pudding, bread, eggs, and tea. One soldier on duty, the other is to be relieved here, a ceremony which is attended to by a good-natured officer. The cart is driven into a shed, and the two drivers, who

are responsible for the baggage, are to sleep on the chests. This was my first day's journey, a mere hop on the endlessly long road to Tibet.

At three o'clock on November 14 the driver knocked at the door and declared positively that it was time to get up. He made a light and served up breakfast, and at half-past four we set out in the track of the waggon, which had driven off at two o'clock. At Jevislik two valleys meet: the smaller called Miryamana, and the larger, which we follow along the right bank, Hamsi-köi. At the bank of the river grow thin wood and bushes, and a couple of cypresses, just visible in the darkness, indicate a graveyard. The cocks of the village proclaim with loud voice that a new day is breaking; but the warm calm night still reigns over the earth, and the moon is unable to disperse the deep murkiness. A light breeze sweeps down the valley, the sky is not quite clear, and I try in vain to obtain a notion of the character of the landscape and of distances; a small path beside the road winds with the river, a dead dog on the wayside looks like a wolf on the watch for its prey. The purling of a brook is faintly heard, and small bells tinkle in the night when we meet a horse caravan. A solitary wanderer starts out of the darkness like a ghost and flashes past. The driver yawns, but has to look after his horses, for the ascent is steep; we go slowly, not as on a *tonga* road in Kashmir. The soldier who rides beside me nods in the saddle and sways backwards and forwards, while his comrade escorts the waggon. A huge fallen rock forms with the mountain wall a portal for the road. The village Meksila slumbers quietly and silently after the vigil in Ramazan, and only in one window burns an oil lamp; outside a serai bales of goods are piled waiting for further transport to or from Trebizond.

The dawn is scarcely perceptible, in front of us appears a small snowclad ridge, the wind becomes fresher towards morning. In Keremitli every one is asleep and the country is silent now, for we are high above the river, which has grown perceptibly smaller as we have left many of its tributaries behind us. Only a few solitary trees are now to be seen. At half-past six it begins to get light, and blue

expanses appear between light clouds; it is the new day rising over the mountains of Asia Minor. At Mööke grow copses of spruce and foliaged trees with yellow leaves. The landscape is of a northern type, the relief is sharply modelled, and beyond Tus-khanlar bare mountains predominate; the cliffs form pyramids and grey columns between scattered dark-green spruces. After the sun has risen one can enjoy to the full the glorious landscape. Sometimes there is a low vertical wall of rock on the left hand, while on the right a precipice descends to the valley bottom. At such places it is a serious matter to meet or overtake a caravan of horses and mules, which are numerous here, many of them carrying kerosene into the interior. The mules have a wonderful facility for placing themselves right in our way and presenting their houghs to be grazed by a wheel.

The road is excellent throughout, well kept, free from mud or snow, but it is extraordinarily tortuous, winding into every gully, out round every mound, up and down, and over bridges across small side valleys. In two waggons sit a party of men and women, packed like herrings, on their mattresses, pillows and quilts; they are sleepy and silent, but it is not easy to talk when the ears are deafened by the creaking of the wheels and the rumbling of the waggon. The village Hamsi-köi is still asleep, though the sun is high in the heavens, but in the month of Ramazan people sleep far into the day to shorten the hours of fasting. A short distance farther we rest for the sake of the horses —as a rule two short journeys are made in the day. During the halt I eat my breakfast, photograph, and write, while my men sleep.

We mount still higher on the right side of the valley, and the stream contracts to a small white riband skirted by yellow threads—roads and paths running in various directions. Now the woods become thicker, and we are on a level with the tops of the spruces which grow below the road and do not hide the view. A party of unveiled women are carrying firewood to the village and a solitary girl is gathering dry twigs on a slope; her dress is fiery red, she darts like a wood-nymph among the spruces, gives

9. Armenian Church near Hamsi-köi.

us a shy glance and disappears. Here no farms or huts are to be seen; we are in the primeval forest where autumn is in the midst of its work of destruction among the maples, aspens, and elms which find a home among the spruces. Here and there a streamlet falls into a wooden trough where passing beasts of burden can drink, and a foaming white brook dashes recklessly down through the forest, making for the river and the sea. At a valley junction at Bekchiler we pass over to the left side, but soon return to the right after driving along a stretch of road damaged by trickling water. Now for the first time snow patches appear, small and melting.

The spruce wood thins out and comes to an end, and the road winds in capricious bends up the dreary slopes. The heights become flatter and more rounded, and we are at the head of the valley where lateral glens converge from all directions. We ascend leisurely to the Sigana pass (6644 feet), with a khan and two cabins which can boast of a magnificent view over the labyrinth of mountains which covers the country to the south as far as the horizon, and where we discern a snow-capped ridge more elevated than that on which we stand. With a temperature of 45° F. and a south-westerly wind it feels cool after 59.4° at Hamsi-köi.

After the horses have breathed a while we roll along at a good pace through snow-slush and mire, through fine pines below the pass, and afterwards through spruce woods. Below us, at a much greater depth, are seen four zigzag laps of the road, like shelves with small black specks—the travellers. One is astonished to see such a capital well-made road in Asiatic Turkey, though it is an important artery through Erzerum to Persia, and I had not expected to find it better than the carriage road between Constantinople and Terapia, which, however, seems to be purposely left in a bad condition because the Sultan holds most of the steamboat shares.

The fifth zigzag follows the left flank of the valley a step farther down. Here we overtook the waggon just in time to see what a Turkish escort is worth. I had ordered the man not to drive too furiously downhill, so as not to

disturb my baggage, but down the descent from Sigana he must have been exceptionally reckless, and the *sevari* (mounted man) upbraided the *arabachi* (driver) in strong words. The latter replied that it was not his business and instantly received a buffet, but protected himself with his whip. The soldier then lost his temper and struck the driver on the head with the muzzle of his rifle, so that blood streamed over his face and clothes from a nasty wound. Then the driver, beside himself with rage, drew his dagger and made ready to spring, and the soldier had just brought his rifle to his shoulder when we came up and wondered what the matter was. With the help of my driver and soldier I succeeded in separating the fighting cocks before they had taken each other's life. The soldier was ordered to take himself off, and I bound up the *arabachi* with two pocket-handkerchiefs and a towel, after having washed his head and wound at the nearest spring. He was an invalid for the rest of the day.

Through the village Baade, where the last patch of snow lay, we came to the village Sigana, where I established myself in the open balcony of the rest-house, two stairs above the turmoil of the street and a caravan of fine camels which occupied a serai close by. A little later I had the company of a young Turkish cavalry officer, who was returning from an expedition to Mush (south of Erzerum and west of the Van lake), where he had successfully encountered Armenian anarchists, according to his account. They were a notorious band of brigands which had to be exterminated, and with twelve Kurdish cavalry soldiers he had shot down twenty badly armed Armenians. Now he was on the way to Stambul to give in his report of the action.

The large room of the inn was full of travellers, mostly Turks in fez or turban, smoking, drinking tea, and chattering. The caravans always set out at midnight and travel on during the morning. After the camels have been fed or sent off to graze, the men sleep or doze for the rest of the day so as not to feel hunger. But when the sun sets and supper-time is near they wake up, and after the regular meal drink tea and smoke till it is time to set out. Imme-

10. Station-House at Hamsi-köi.

11. Road near Sigana between Trebizond and Erzerum.

diately before sunrise they eat breakfast, either on the march or during a short rest at a *kavekhaneh.* My driver eats bread and raisins on the box-seat and smokes cigarettes just before the sun rises, and after that abstains from everything.

Now we are down in the valley of the Karshut river, which flows into the Black Sea at Tirebolu west of Trebizond.

At three o'clock in the morning the driver is up again and knocks at my door, and we start at half-past four o'clock, driving slowly through the street of the village until we are again out on the lonely highway. We drive steeply up the corniced road, which here is rough and miry from melted snow and moisture from the mountains, and from small brooks which do their best to ruin it. We have a suspicion that the road will become worse the farther we retire from the coast. We are on the left flank of the valley, which falls suddenly to the bottom, the sky is cloudy, darkness envelops us, and the abysm is veiled in mist. Dark spruces are indistinctly seen beside the road. At the more precipitous places the road is guarded by a wooden paling. Beyond the village Khanera-khanlari we are almost on a level with the surrounding crests, and beneath us the chasm of the valley conceals its secrets. The clouds clear away, and sharp shadows of the vehicles and horses are thrown by the moon on the road, which is now again excellent and runs downhill. In the windings of the side valleys the road is at least twice as long as it need be; then it follows a slope down to the valley bottom in order to pass by a bridge over to the other side and mount up again. The two stretches of road are often almost parallel to each other. Along a steep bare cliff the road runs like a shelf, and here is a nasty place to meet a large caravan in close order; the driver keeps inside that his horses may not be forced over the edge where an abyss yawns, while I hold myself in readiness to jump out if anything of the kind occurs.

The snowy crests of the east appear in light pink hues, and the edges of the clouds are tinged with purple, heralding the dawn. Down we go again to the village Köpri-

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bashi, or "bridge-head," where the bazaar street forms a sharp bend, and the rumble of the wheels is echoed from the low houses and cabins. Here the Ichu-su is crossed. The village Ardasa has a bridge of three arches, and some houses in the Stambul style, with iron balconies and flat roofs. Now the morning clouds are of a deep golden yellow, but the sun is hidden by the mountains, and we drive in deep shadow a few yards above the valley bottom. A caravan of white horses is carrying sheep and goat skins to the coast. The landscape is bare, only a poplar standing here and there on the bank. The valley becomes more contracted, and we mount slowly between thin juniper bushes, briars, and hawthorn. At Demirchi-suyi, "smith's brook," where one or two of the faithful are beginning to rub their eyes, we drive past a caravan of splendid camels, moving sedately at a slow, dignified pace. Most of them are brown, but some light yellow, and their winter wool has begun to grow. On the left opens a large side valley, which affords an extensive view into a labyrinth of mountains. The village street at Ichise is blocked by camels, horses, and mules, and we have to steer gently and carefully through them. Outside the village we meet a large horse caravan. The leader is decked and trimmed with ribands and tassels in yellow, red, and blue, and from his load two rods stand up tied together, which are also fully decorated. Round his neck he bears a bell as large as his head, which beats and rings with every step he takes. He is quite conscious of his responsibility, needs no superintendence, and draws the others in a long string after him. Most of these also carry small bells and rattles, and sometimes three bells are placed one inside the other to serve one another as clappers. There is a ringing and tinkling and jingling noise in the valley when these bell-ringers pass by.

At Kharava a bridge in four sections crosses the river. First there is an ordinary stone bridge of two arches with a stone parapet of well-dressed blocks; then a platform-like span, then a wooden bridge resting on six stone piers, and lastly another span without an arch. The valley becomes after that more and more contracted; the scenery is

wild and picturesque. At Besh-kilisse, "the five churches," there are several open caravanserais, consisting of a roof supported by massive posts like columned halls. At Fartuna-khanlari a caravan had thrown down its loads of ox-hides on both sides of the village street, which caused one of our horses to shy and break his harness.

Now the valley is merely a hollow road some twenty yards broad, but the skirting mountains are relatively low. Here and there stone-cutters are at work, preparing material for repairing roads, bridges, and parapets. In the narrow passage lie the houses of Churdale-ogli-khanlari, serais and shops picturesquely squeezed in, surrounded by an oasis of poplars, pines, and fruit trees, now changing into the yellow tints of autumn. Round the bazaar hovers the well-known Oriental odour. Above the village small cultivated patches extend where there is room, and foliaged trees, which are becoming more numerous, stud the grey landscape with yellow spots. In the village Gümüsh-khaneh, or "silver house," where we rested, the ferocious soldier is dismissed, and replaced by another. The other, Shukkur, has come all the way from Trebizond.

The road winds onward like a terrace five yards above the valley bottom between isolated thickets and farms. At Sorda, a village of the usual type—a single street and a mill driven by a small side canal—we drive past a train of carts on two solid wheels without spokes, and loaded with timber. They are drawn by buffaloes and oxen, and each team is arranged, one may say, in two storeys. Next to the car, and rather far apart, are harnessed two tall buffaloes on either side of a short high pole. Under this projects a longer pole, the yoke of which is borne by two young oxen, which walk between the buffaloes, and only emerge the length of a horse's head from the closely-packed team.

Along the mountain foot the road ascends with the gradient of the stream; the little water left is divided into several arms in the gravelly bed. The mountains show shades of yellow, brown, and red, and a small sharply-defined area of sprucewood on the left flank is conspicuous owing to its green colour. Recalling to mind certain

Caucasian villages, Teke is erected on an isolated mound in an expansion of the valley, but the bazaar stands at the foot of the mound opposite the graveyard, and the road runs between them. Oxen are ploughing the cultivated patches, and innumerable crows nest in the few poplars and willows. Through a side valley to the south a road leads to the town of Erzinghan, and seems to be practicable for wheels. Near its mouth are grazing many thriving and handsome dromedaries, which look splendid in their red and blue pack-saddles.

At length we arrive at our night-quarters, Murad-khan-ogli, a small village of some fifty inhabitants. Here I choose a newly-built house, in which no one has yet lived, in preference to the doubtful company in the rest-house. At every halt the village headman, bearing the title of *mudir* or *mutasserif*, comes to wait on me, and politely offer his services. Even here the winter is decidedly milder than in Erzerum, showing the difference between a coastal and continental climate. At eight o'clock in the evening of November 15 the temperature was quite 52.7°.

12. A Primitive Threshing-Machine.

13. One of my Turkish Soldiers.

CHAPTER V

THE ANCIENT CARAVAN ROAD TO TABRIZ

Up again early on November 16. The darkness lay dense and heavy over the country, the sky looked threatening, there was a fine drizzle, and the mud on the road and the wet loads of the camels showed that it had been raining heavily. Immediately above the village we follow a shallow valley up between flat elevations, one on one side, the other on the other side of the valley. There is no vegetation except a few willows and knotty shrubs. We are again approaching a pass, and the villages we pass through, such as Kalejik, Ghechid-khanlari, Vavuk-dag-khanlari, and Gögerchi, consist of only a couple of houses. The traffic is lively on this night of Ramazan; buffalo and oxen carts creak and groan, laden with huge trunks on the way to Erzerum where there is no wood, and interminable camel caravans from Persia hurry past us in the darkness bearing a whole trainful of merchandise down to the coast and for further transport westwards. The camels are tied together and are hung over with bells, not dull and harsh as is often the case, but with a pure clear note ringing solemnly as in a religious procession to the step of the royal animal. I never weary of this same old monotonous sound with its unchanging rhythm, the ceaseless ding-ding and dong-dong which I have heard so many times before, and which always awakes a longing for the Sabbath peace of unknown deserts and adventures on untraversed paths; it seems to ring up old memories of my youthful years in vast Asia.

Unlike the mules the camels have the sense to get out

of the way, and for their own sake avoid a graze from the axles; but they are tied together, and if the file is going along the left side of the road and the first camel in the detachment takes it into his head, as often happens, to pass over at the last moment to the other side, there is confusion, and we have to wait till they have passed. Though the animals are so numerous, the drivers are few; but the camels are intelligent and know the way after so many pilgrimages to and fro between Tabriz and Trebizond, and generally take care of themselves. The men are Tatars or Persians from Azerbeijan, unlike the Turks both in features and dress, in black *kullah* or lambskin cap, blue frock-coats with waist-belts, slipper-like shoes, and a *kinjal* or dagger in the belt. Sometimes a blunderbuss is seen thrust under a rope on a load. Dromedary and camel caravans always travel at night, for the animals cannot see to graze in the dark, and in the daytime they are let loose to feed themselves. In the fasting month cart, horse, and mule caravans travel at night, but at other times they prefer the daylight.

The red Turkish flag, with its white crescent, distinguishes a wretched hut at Ghechid as a military post. In a side valley with a brook the road, walled up in terrace form along the foot of the mountain, occupies the valley bottom, which is here very narrow, and the driver hurries through a corridor-like passage, for it would be a delicate operation to squeeze past a caravan if we met one. The hollow way, however, soon emerges into more open ground, and we mount up the mountain slopes. Clouds hang like curtains and cotton wool over the heights, but the rain has ceased. The horses toil up to a new pass, Vavuk-dag, a flat gentle arch, where, with a temperature of 43.7° and a wind, it feels raw and chilly. To the east the country is level or slightly undulating. The road runs straight down, often very steeply, and on the long descents the driver dares not for a moment lose control over his horses, or these over the carriage. Cherchi is the name of the next watchhouse, and in Khadrak are houses of stone, with verandahs, however, of wood—stone becomes the more common building material, for up here wood is much dearer.

14. Rest Half-way.

15. The Horses at Breakfast-time.

The ground consists of soft yellow loam, and the road becomes worse and worse. There is, indeed, a roller standing at the road-side, but apparently it cannot contend with the rough metal intended to strengthen and repair the road, for this lies in a hard ridge in the middle which is avoided by both caravans and vehicles. One must drive carefully over these holes, ridges, and ruts, where the mud gives way under the wheels. Passing through the large village Balakhor we come to Osduck, where we rest a couple of hours and again exchange a soldier. The horses are fed with barley; it is well that they are not obliged to fast in Ramazan.

Then we pass, on the left hand, the Armenian village of Varsehan, with two churches in ruins and another newly built. We overtake an old officer of Kurdish militia, but otherwise the road is deserted now in the later hours of the day. We cross an open hillocky valley and have the river Chorok, which we have just passed over, for a long distance on our left, in which direction the mountains are sprinkled with snow. Horned cattle, buffaloes, and sheep feed here and there, and sometimes peasants are seen ploughing their wheatfields. Up and down we go through this country, which closely resembles certain parts of North Tibet; we happen to be just in the transitional zone between the coast land, cut up by valleys and erosion furrows, and the plateau country which stretches on and on to Iran.

A Turkish family is travelling eastwards in a cart drawn by four oxen. They are moving with their goods and chattels, and up on the top of boxes, sacks, bed-clothes, cushions, coverlets, kettles, and other household utensils sits the wife like a hen on a rubbish heap, and nurses her baby. She jealously conceals her beauty, covered all over with a red wrap. The man drives, and his eldest boy walks alongside, and with a switch wakes up the oxen, which are almost asleep.

The horses take us up to the summit of a hill, and we see as through a portal the town of Baiburt and its large barracks in the valley bottom, with a long descent before we reach it. Here we are suddenly in the midst of life

and movement after the quiet of the country hamlets. After the first dwellings, a small suburb, we drive through the burial-ground with its gravestones standing on both sides of the road, and beyond we plunge into the heart of Baiburt, following the narrow streets, mean but rich in colouring, full of black stinking refuse which dogs can eat, for it contains various fragments of organic origin. Lively children play on the roofs where it is cleaner, and women trudge about with pitchers, all closely veiled. But they cannot refrain from standing and peeping through an opening in the red veil and provoke one's curiosity. One is consoled on seeing a pair of large red feet in torn slippers, though small neat ankles are also seen tripping about in those dirty streets. At the corners stand groups of bearded Turks, in fez, binder, or turban, in red picturesque costumes, sunburnt, and powerfully built.

Another small street leads to the meidan or market-place, which is packed full of people and goods, ox-carts, caravans, and horsemen, and where my guard of soldiers rides in front to clear a passage for the carriage. Here there is an odour of cabbages, root vegetables, apples, and grapes, of grocers' shops, and slaughtered sheep, and here sit potters and offer their decorative wares for sale. Altogether the scene is fascinating, full of oriental life, and one could stay here all day, pencil and sketch-book in hand, but the carriage hurries me inexorably on over a wooden bridge on two stone piers across the river Chorok, which enters the sea immediately to the south of Batum.

Close to the bridge-head, on the right bank, the newest hotel of the town is erected. My room has quite a European, or rather a Russian stamp, is furnished with an iron bedstead and chairs, a lamp stands on a table and a water bottle, the door has a lock, and the window panes of glass and curtains. If all were clean and free from vermin it would be quite comfortable, but wherever the Turk goes he carries all kinds of uncleanliness with him. It is also characteristic that the article of furniture which Europeans consider most important, and where the basin and jug are wont to stand, is always absent. When one wishes to

wash a servant comes in with a metal basin and a brass can, from the spout of which he pours water over one's hands. The hotel has a *kavekhaneh* or restaurant, with chairs, tables, and counter, and there is also an open-air café on the flat roof with chairs and tables.

The best point of the hotel is its situation on the bank of the Chorok, here some 30 feet broad, and the view of the bridge with its changing scenes and movement and constant crowds. Immediately below the bridge the river is deep, and ducks and geese swim on its bright green water. Through the bridge street the view also commands the meidan, where the crowds of purchasers become denser as the time of supper draws near. Right opposite us, on the left bank, hang the balconies of a large *kavekhaneh*, supported by posts leaning out of the perpendicular above the river, and immediately behind them rises the new mosque, Jagoutija Jamesi, with its slender minaret and its pinnacle. Farther away from the river is seen another mosque, Jamesi Kebir. A crenelated wall in ruins, said to be a relic of Persian times, crowns a mound. From this commanding height there is a fine view over Baiburt and its singular close mosaic of cubical stone houses with small balconies and verandahs, and of the river, which runs through the middle of the town and immediately below the principal bridge enters a ravine between rocky walls and forms foaming cascades.

On the left bank, just below the mound with ruins, the Armenian quarter is situated. The Armenians, estimated at about a thousand, are traders, dealers in agricultural produce, artisans, smiths, and the like, and are in bad odour with the Turks, 5000 in number — exclusive of women and children. One or two Kurds live in the town and a number of Persian *khojas*, ecclesiastics, study in the *medressehs* or theological high schools. The governor bears the title of *kaimakam*, and Baiburt has also a small garrison of cavalry and artillery. The obliging chief of the gendarmerie, who paid me a visit, showed me the town, and tramped about with me through the disagreeable dirty streets. He informed me that severe cold in winter, which covers the Chorok with ice, lasts only a

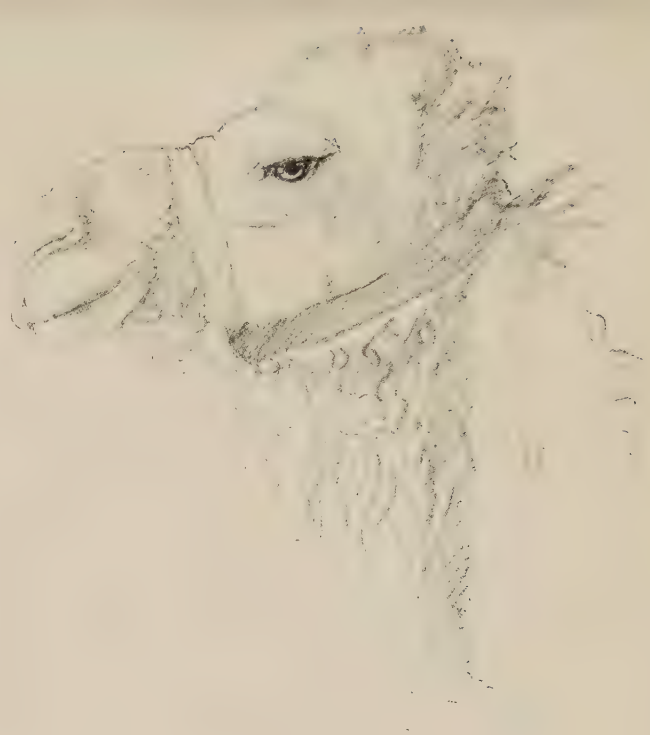
month, and that the summer is warm without being oppressive. The river swarms with fish, which the people take no trouble to catch, and boats are not used.

We went about and looked at the motley groups and playing children, beggars in rags, *khojas* in white and *seids* in green turbans, hajis and dervishes, citizens, soldiers, and officers, in dark blue or red uniforms with large bright brass buttons, curved sabres, and red fezes with black tassels, veiled ladies riding and driving,—a kaleidoscope of comers and goers, and of ever-new groups all rich in colouring.

A cannon-shot booms over the houses, sunset is come, and people hurry to the evening meal after the day's fast. My cicerone, who walks with a cigarette behind his ear to have it at hand, makes use of the first torch which flares up before the echo of the shot dies away among the mountains. Now oil lamps are lighted on the minarets and in the open shops and booths of the meidan, and the Mohammedans gather to their longed-for supper.

We sit down in my balcony and listen to the roar of the river and the sounds of the Ramazan evening, and see in darkening shadows two streams of traffic pass over the bridge, a Galata bridge in miniature. Over this bridge runs the great important artery between Trebizond and Tabriz, nay, between Constantinople and Teheran, the famous old caravan route which served Northern Persia before the Caucasian railway was built. Compared to the Grand Trunk Road in India, it is quite insignificant in our days; but the life, with its Oriental colouring which is bound up with and dependent on the road itself, has the same magical and fascinating character as there. It is the great road for the *arabas*, or carts, with their occupants —Turkish men and women; the way for the carriages of officers, officials, and merchants; for horses, asses, and mules, when the caravans carry groceries to the interior, and corn, wool, and hides to the coast; it is the highway for the creaking ox-carts and buffalo waggons, and an excellent riding-path for couriers who carry letters in two days from Trebizond to Erzerum. But above all it is the grand route of camel and dromedary caravans to and from

16. Head of Camel.



17. Head of Camel.

Persia. Many an old grey caravan leader has travelled along this road innumerable times to Trebizond on the blue sea and to Tabriz in Iran the blessed; how many times he does not know himself, but he is familiar with every village, every *khan*, every turn in the road, and he always knows how far he will have marched by evening or morning. He takes his simple food with him in a *kurshin* or double bag, and the public serais are cheap. The whole journey costs a mere trifle, and the dromedaries feed themselves on thistles and grass among the hillocks. He is sad at leaving his beloved Azerbeijan, with his heart in his mouth he traverses the long way through unruly Kurds and insecure borderlands; but afterwards, as he approaches Erzerum, he plucks up courage again and rejoices when he has behind him the Kop-dagh and the other passes, and descends along an excellently made road to the rich and brilliant Trebizond, so warm and kindly in winter, so cool and fresh in summer. And each and all of these hundreds and thousands of caravan men, who year after year wander to and fro along the great highway, has a history before or behind him, his life is a romance, perhaps very monotonous, perhaps also very eventful and strange as that of Haji Baba.

At eight o'clock supper is over, and the *kavekhaneh* of the hotel is filled with satisfied, happy, and noisy guests. They sit down on sofas and chairs round small four-cornered tables and play cards or tric-trac; they smoke cigarettes and narghilehs, and their merry groups appear like shadows through a dense cloud of tobacco smoke; no drinks are seen except perhaps a cup of coffee. A minute is enough for me in the Turkish café; I prefer my own balcony, and to see the lighted windows and the flaming lamps on the parapets of the minarets flickering in the darkness, and hear again high-pitched noises from a caravan which is already beginning its nightly wanderings in order to reach its camp before sunrise, and I like to listen to the roaring water of the Chorok. But when one is roused in the middle of the night, eight o'clock is late, and I creep off willingly to bed.

Next morning I am awakened at two o'clock, when the

noise and the clink of draughtsmen has not yet ceased in the *kavekhaneh* of the hotel. The gendarme officer comes again to visit me; I suspect that he has passed the earlier part of the night in the café. Shukkur, my *sevari*, or trooper, complains that his horse is tired out, and I am obliged to inform him that it is the business of the authorities, not mine.

The night is calm and clear, the stars glitter like Ramazan torches, and the moon, like a gigantic lantern, shines down on Baiburt, and the weather is splendid for a drive over the Kop-dagh pass. But it is cool, nearly at freezing-point, and I draw a couple of felt rugs round me when I take my seat in the carriage and roll through the narrow dark streets and burial-grounds. As soon as we have left the last houses behind us we are out on the hillocky untilled land, and pass long trains of ox-waggons effectively lighted by the moon, and equally picturesque when they are seen with the moon behind them, their outlines thrown in sharply-defined shadows across the road. Carts laden with corn rest on axles which revolve with the wheels, and grind and creak against their bearings. It is a horrible noise, a piercing squeak. The waggons move slowly along the road, the rattle can be heard from afar, becomes louder, and is quite deafening as the vehicles pass by us in the moonlight; the creaking has scarcely died away before more carts are heard approaching. Many are laden with firewood from some thicket, and are on the way to Baiburt.

After driving at some distance from the Chorok we come again to its bank, where a caravan of 121 camels, laden with grain, is on its way to Baiburt. The river looks quite imposing among the hills. At six o'clock the first glimmer of day appears, and the colour of the sky is discernible, but not that of the land. At the village Maden-khan, or khanlari as it is commonly called, the cocks are engaged in their morning concert; here a bridge crosses the Chorok, the left bank of which we now follow, ascending gently. Then the road runs up through a side valley, sometimes open and sometimes contracted, its dreariness broken only by thin shrubs or willows no

larger than bushes. A train of thirty ox-carts fills the valley with its combined creaking, and we drive past a huge caravan of 221 camels and dromedaries, conveying cloth and groceries in chests and bales to Persia. The caravan consists of thirty detachments, each with its Persian leader; the largest contains fifteen, the smallest four animals, fastened together by a rope to the muzzle, not with a peg in the nasal cartilage, as in Central Asia. The Persians reckon it fourteen days' journey from Trebizond to Tabriz.

Our day's journey was broken by two hours' rest in the rest-house of Kop-khaneh, below the pass, where the horses recruited their strength for the effort of drawing our carriages over the watershed. Here we could warm ourselves at a crackling fire, very welcome at a temperature of 35.4°, with a sky entirely overcast; the sun had scarcely risen above the horizon when it again disappeared behind heavy clouds. While we were resting the post came in from "Istambul," driving at full gallop into the yard escorted by two horse soldiers. The dark skin bags were packed on nine horses, which were to carry them over the pass, beyond which they would be again transported in *arabas*; by evening they would be in Erzerum.

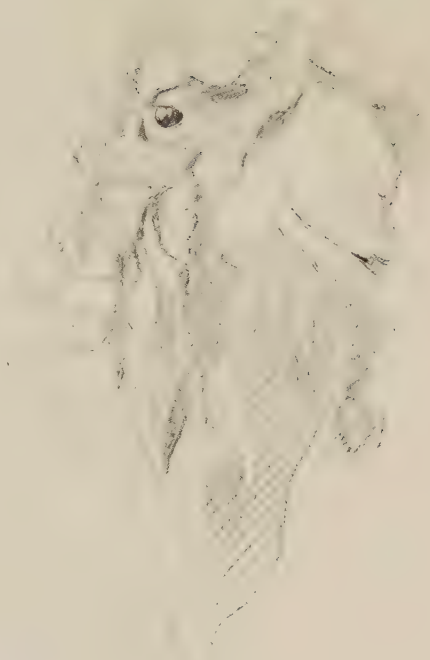
And so we go on up the valley to the pass, where an old Turk comes trotting along in a Caucasian *burkha*, which flaps about him like bats' wings. One can see by his horse how deep the mud is up on the Kop-dagh. Now the ascent begins up to the pass in steep zigzags; the ground is soft and moist, and the transport waggons cut deep ruts in it. Another *khan* is passed, a quadrangular wall of stone and a roof covered with earth. We mount higher and higher, the horses puff and flounder, the valley bottom sinks deeper and deeper below us, and the bird's-eye view becomes ever more pronounced. Up near the summit the gradient becomes easier; on either side extend thin sheets of snow melting in the sun. The Kop-dagh pass is double—two gently arched saddles, with a military post in the hollow between them, where my trooper is exchanged for another; that is the sixth change in the day.

To the south extends a wide view over a very monotonous landscape of flat rounded crests; the nearest appears red, the farthermost, which is snow-covered, dark blue. Then we drive for some distance at about the same height, up and down, over hills and slopes, and afterwards come to long but not excessively steep curves. At the very top, on either side of the summit, the road is wretched, nothing but a bed of mud, where the carriages sink in to the axles. In winter, it seems, the snow lies deep on Kop-dagh, but even in open winters the road is heavy, for the ruts more than a foot deep are frozen hard. Up here no trouble is taken to keep up the road; at the Sigana pass it was in much better order, and the scene more picturesque.

From a declivity we see the square station-house, Ak-dag-khan, down in the valley below where a caravan, like a row of small black beads, is coming with ringing bells to meet us. Between the winds run steep short cuts for pedestrians and horsemen. Below Ak-dagh, where the soldier is changed for the seventh time, the road is soft and good, and sometimes it feels as though the wheels were furnished with india-rubber tires.

The great high road takes us over an open basin through a hollow way, where we cross the brook by small bridges, through the village of Pirna-kapan, and over a small ridge. The landscape is flat and monotonous, like all tablelands, and horizontal or slightly undulating lines predominate. The vertical, so common about the deeply excavated valleys of the coastal land, are absent here. Now one sees solid stone buildings and timber work constructed simply to support roofs of earth. At all the cabins and station-houses and on their roofs are piled up huge stacks of hay stored up for winter use, a favourite resort of flocks of sparrows. The village Chöll-ogli-khanlari is a halting-place, where a bridge spans the brook; here we rest five minutes to let the horses drink out of a wooden trough at the roadside.

Over a plain, perfectly flat to the eye, the road runs like a line drawn with a ruler, and the river flows to the right at the foot of low hills. We cross a large erosion furrow



18. Head of Camel.

19. Heads of Camels.

by a stone bridge, and at its terraced margin the village Ashkale suddenly appears in sight, situated on a small tributary to a river which perhaps has a greater and more ancient history than any other on the earth, at least in Christendom; its name is Frat-su, or Euphrates. The inn stands on the right bank, but the village itself is on the left. The inhabitants are mostly Turks, but there are also a few Armenian families; they are called "Ermen," and live at feud with the Turks, as is only natural, for the Mohammedans are heathens to the Christian Armenians, and these are *kaper* or *kafir* (unbelievers) to the former.

CHAPTER VI

HIGHLANDS WHICH ARE DRAINED TO THREE SEAS

It is strange that the continental climate is so decidedly pronounced so near to the coast; the night is quite clear and mild, and when we set out at seven o'clock, having slept longer than usual, the thermometer marks 31.1°. Then light clouds hover over the earth and clothe themselves in their morning mantle of glittering gold, forming a brilliant background to a large caravan of Persian camels and dromedaries, all decked with pure white flecks of hoar-frost. The country also is covered with white, and the uppermost layer is frozen, but is so thin that we ride easily. We follow the Euphrates upstream on its left bank, after crossing the river by a bridge resting on stone piers. The river is here called the Kara-su, and carries down perhaps 175 cubic feet of water per second. There is no vegetation on the banks and all the hillocky country is dreary and sterile. On the right bank is Yagdarish, a small village at the foot of a knoll, and higher up is another, Kara-büyuk. Jinis-khan is a large fine caravanserai of stone. Ox-trains with chests and bales pass to the east; those which are making for the opposite direction carry hay, corn, and firewood. There is a reek of oxen in the cool of the morning.

We are again entangled in an endless caravan on the way to Persia; the animals are frightened by the rumble drawing nearer behind them, and start uneasily to one side. As far as the eye can see over the flat country the road is packed with camels and dromedaries; they seem to take entire possession of the landscape and diminish to small specks in the distance. It takes us a considerable time to

thread our way past the 272 camels driven by 38 Tatars. The peal of their bells is heard at some distance rising up in a single vibration; as we drive past them we are deafened by the clamour and clash of the bells, one after the other, and the noise rings out behind us.

At the serai of Evreni-khan another Persian caravan is resting for the day, and its loads form quite a house and walls along the way. Certain stretches of the road are under repair, and meanwhile we drive along the side. A road roller is being drawn by six pairs of oxen over the metal. At the village of Aghamed the banks of the river are connected by a fine bridge on two pillars. Both on the right and left run snowclad mountain ridges, and on the flat land between them lie newly ploughed fields, where the homesteads can easily be counted.

At Ilija warm springs, as the name indicates, rise out of the ground, and a bath-house is constructed over them. In the only basin of the three that was accessible the temperature of the water was 98.6°; the others were at the time occupied by women. The clear water steamed, and a light haze spread over the surroundings which at a distance looked like a lake.

Now Erzerum appears in front of us below a small white ridge. We see the town isolated and enclosed like an island in the open landscape, we drive and drive over solitary fields and slowly draw nearer, but nothing indicates the approach to a town—no noticeable traffic, no outlying villages or gardens, and yet we see it before us. Now houses can be distinguished, minarets and a few trees, and at length we pass through its double lines of fortification with a trench between them, and are stopped by a police sentry who examines my Turkish passport. Through narrow streets, where one could be drowned in dirt, we reach the meidan with its ox-carts, shops, and people.

In Erzerum I was to live for a day like a king, or at least as a European, in the society of the consuls. My driver, Mehemet, was ordered to draw up before the French consulate, and here I was most hospitably received by the vice-consul, M. Srabyan, an Armenian, who manages the

affairs of France under the superintendence of the consul, and the French consul was the same M. Grenard who took part in the unfortunate journey of Dutreuil de Rhins in Tibet. In M. Srabyan's large chancellery a comfortable room was prepared for my use; and after a thorough and very necessary renovation of my outer man I paid visits to the Russian consul, General Skriabin; the English consul, Shipley; and the governor-general or vali of the Erzerum vilayet, Nazim Pasha, a perfect gentleman, who spoke excellent French and had received orders from Constantinople to provide me with an escort of six troopers for the journey through the insecure Kurdish borderlands. While we were sitting in his house the Persian consul and his two secretaries came to call, and thus I had an opportunity of making acquaintance with this potentate, whose visa for my passport was of great importance. Then we waited on the American missionaries and their doctor, who took in hand my wounded *arabachi*, whose head had swollen up from blood-poisoning after the blow he received from the trooper.

With M. Srabyan as guide I took a drive through the narrow, picturesque, and singular streets of the town, where the deep mire is mixed with refuse from the houses, and homeless dogs act as scavengers. No verdure, no gardens, only a poplar or willow or two relieve the mosaic of solid stone houses with flat roofs. The Chift minaret is a beautiful memorial of the Arab period, with *pishtak* façade and two fluted towers, and the principal mosque, Uli-Jami, is an old Greek Orthodox church which was converted by the Mohammedan conquerors into a temple of Islam. The town has 40,000 inhabitants, of whom a fourth are Armenians who own four churches and a school; the rest are Turks with a few Kurds and Lazes. In the whole of the Erzerum vilayet, which is said to contain 646,000 inhabitants, 80 per cent are Mohammedans and 20 per cent Christians. The Turks have sixty mosques in the town, several dervish monasteries, a hospital, schools, and *hammams* or baths. Since 1864 the town has been surrounded by fortifications, and the most important forts are Top-dagh and Kirimithi-dagh. The garrison may number

some 8000 men of various arms, but mostly garrison artillery.

According to M. Srabyan some dozens of gipsy families of Christian faith are to be found in the territory of Erzerum. They lead a wandering life, but are distinguished from other nomad tribes in the country by their religion and language. The latter is an Armenian dialect mixed with a number of Sanscrit and Parthian words. According to tradition these gipsies came originally from Egypt.

Like Trebizond, Erzerum is of great antiquity. Before the Seljuk conquests Ardsin was a town situated on the right bank of the uppermost course of the western Euphrates; it was destroyed first by an earthquake, and then entirely by the Seljuks. On the site of Ardsin now stands only a village, Kara-ars (Karars or Kars), "black earth," or "land of woe." The name Erzerum or Erzirum is said to be a contraction of Ersen-el-Rum, "the Roman land." Garin Khalakh is its Armenian name. In the fifth century Theodosius II., Anatolius, erected a stronghold on this important spot, at the end of the tenth century the town was flourishing, and in the year 1201 was taken by the Seljuks, only to fall, forty years later, into the hands of the Mongols, and in the year 1517 into the possession of the Turks. In 1829 Erzerum was captured by the Russians, but was restored to the Turks by the peace of Adrianople. Again in 1878 the Russians took possession of Erzerum, but evacuated it once more after the peace of San Stefano. Even to the present day Russia keeps a watchful eye over this district, and the Russian consul-general is regarded as the most influential man; Russia has also secured a concession for a railway from Sinope to Bitlis on the Van lake near the Persian frontier, but under existing political conditions naturally makes no use of it, for this line would, to a great extent, eclipse the Trans-Caucasian railway.

A glance at the map alone is sufficient to convince us of the important strategical position of Erzerum. Certainly this high plateau (6600 feet), with its cold winter and warm summer and its niggard soil, is little suited for cultivation, but from Erzerum high roads radiate to all parts of Western

Asia. At a distance of scarcely a day's journey north-east of Erzerum one can ride in an hour's time from one source to another of three brooks, one of which flows to the Chorok, the second to the Euphrates, and the third to the Araxes, or, in other words, to the Black Sea, the Persian Gulf, and the Caspian. Erzerum is therefore situated on the very crown of a tableland which drains to three different seas, and as the natural water channels run down to them, so also do the great routes and the strategic lines, which under certain military combinations command Asia Minor and the roads to the Persian Gulf. Erzerum also lies near the Russian frontier and Kars, and one may be sure that all preparations have been made to strengthen the town and connect it with Kars by a protected line of communication. Also one of the Russian consul-general's three secretaries is actually a military attaché.

Of the source of the western Euphrates M. Srabyan reported the following legend current in Erzerum. When the Emperor Heraclius succeeded in recovering the cross from the hands of the Persians, the accompanying escort was attacked by enemies and forced to give battle in this neighbourhood. In order to save the cross a hole was first digged in the top of a mountain. Then the encounter took place, the enemy was defeated, and the victors went to dig up the cross. A large spring burst out of the ground where it lay. This spring, which was called from that time Khachapaïd or "Wooden Cross," is considered holy, and is resorted to by pilgrims from all the district. The Turks call the mountain Giaur-dagh or the "mountain of unbelievers."

Of Erzerum the same may be said as of Trebizond, that is, that of late its commerce has suffered severely through the construction of the Caucasian railway. Both vilayets, Erzerum and Trebizond, which are crossed by the ancient trade-route from Tabriz, formerly drew a yearly revenue of 500,000 Turkish pounds from the transit trade, but this gain has now sunk to 100,000 pounds. For merchandise in transit no other dues are exacted except for sealing up; the income derived by the two provinces consists only of the money left behind by the caravans for

the maintenance of man and beast. The expense of a single journey is reckoned at a pound and a half per camel, and 20,000 camels come annually from Tabriz and as many from Trebizond, which means 40,000 packages yearly in each direction. The owners of the camels usually accompany the caravans themselves, and camels are used only on the main roads, all the other transport in both vilayets being provided by horses, asses, buffaloes, and oxen. The trade also suffers serious inconvenience through the insecurity in the neighbourhood of Bayazid, where Kurdish robber bands play their game. They usually attack at night, either when the caravan has encamped or just before it starts. Another trick is to secretly destroy the seals, and thus find a pretext for opening the bales at the frontier and create a disturbance, which not infrequently ends in bloody encounters and murder, for the caravan men are prepared for resistance.

The vilayet of Erzerum exports oxen, cows, horses, hides, sheepskins, and corn, etc., to the value of £400,000, and imports various groceries and manufactured goods, spices, alcohol, wine, tobacco, matches, glass, and porcelain, etc., worth £600,000. The balance, £200,000, used to be made up by workmen who earned money elsewhere, and brought home savings to the amount of 300,000 Turkish pounds. But this resource is now cut off by an order forbidding emigrants to return. The consequence is that the taxes have increased by 36 per cent in the last four years, the cost of living has risen, the Christians have been impoverished, and their wretchedness acts indirectly on the Turks. This is regarded as a phase in the systematic persecution of the Christians introduced by Sultan Abdul Hamid, and which was more injurious to them than bloody massacres. Ever since the attempt with bombs against the life of the Sultan, the screw has been put on harder. Murder of Armenians is left unpunished, Armenian girls are carried off by Mohammedans and forced to go over to Islam; the peasant must return home from the field before sunset with his oxen or they are stolen; an Armenian who wishes to leave his district must obtain a special permit, which is not needed by Musulmans.

In consequence of this newly introduced system of extortion the land is passing into the hands of Mohammedans. Fifteen years ago 95 per cent of the Armenian population owned their lands; now only 35 per cent are landowners. The remainder have by degrees been forced to become farmers and day-labourers to their Kurdish and Turkish neighbours, and this also causes the whole prosperity and economy of the country to decline; for the Kurds do not work at all, and the Turks badly, while the Armenians who know how to cultivate land are servants and slaves. Agriculture is going to ruin, and it is difficult to conceive what interest or advantage the Turkish Government can have in impoverishing the country. Thus, for instance, the assessed taxes in one district now amount to £6000, where twelve years ago they were as much as £18,000.

The day of rest soon came to an end, and at dusk the genial M. Srabyan conducted me to the Armenian Gregorian cathedral, maintained at the cost of the Armenian community in Erzerum, which contains several men of property. The interior of the temple is of grand simplicity. The poorer worshippers listen to the service standing on the mat-covered floor; for women there are enclosures with lattices, for the Armenian women are also thinly veiled in long white draperies. Outside is a churchyard, with closely packed tombstones bearing inscriptions and crosses, and on two of the grander tombs monuments like chapels are carved in Armenian style.

The first evening I dined with M. Srabyan, and had an opportunity of seeing how an Armenian house was conducted—much as in Europe, and the ladies wore the simple dark and becoming costume of their native land, a kind of diadem in the hair, but not the white veil which conceals the figure, though it is, indeed, ornamental. Slender, melancholy, and wan, the Armenian ladies loiter about and look like brides, as if every day were a wedding-day for them. One is touched by sympathy and compassion for this unfortunate and oppressed people, and experiences a feeling of grief and shame that the Great Powers of Europe can in our modern times look on passively while Turkish dogs crush down a Christian people.

In the five provinces inhabited by Kurds—Erzerum, Van, Bitlis, Diarbekr, and Harpud—a system of irregular cavalry was organized thirteen years ago, a kind of Kurdish militia, which is called Hamidieh, after its founder, the Sultan. I was told that this innovation had no other result than that the Kurds, who before lived as bandits at their own risk, now can continue their depredations with impunity under the protection of the imperial title. They were six bandits of this kind whom Nazim Pasha gave me as escort. At times many of the Turks themselves grew weary of the rule of Hamid and longed for something else, even if it were Russian supremacy. In Asia Minor, no less than elsewhere, he fanned the fire of hatred against himself, the old tyrant in Yildiz Kiosk. But now he is removed, and has plenty of time to repent of his sins, and no one seems to miss his rule, though many admire his diplomatic acuteness and cunning.

In the evening the Russian Consul-General gave an excellent and animated dinner, after which we sat joking and smoking round the samovar, and midnight was past before we returned to M. Srabyan's house. At two o'clock a cannon-shot announced the last meal before sunrise, and it was still dark when I heard the two drivers come to fetch the baggage. Now I had two waggons and a drosky; the roads become worse the farther one drives into the continent, and every waggon was drawn by a team of three, and also my drosky. The distance from Trebizond, or Trabsun, as the name is pronounced here, to Erzerum is reckoned at 194 miles, and from this town to Bayazid at 155. For the three vehicles I had to pay 30 lira or pounds (£27 : 12s.), provided that I was taken to Bayazid in five days, that is, at the rate of 31 miles a day, otherwise I was to pay only 27 lira. Driving with heavy baggage through Armenia is therefore very dear, especially as the escort, drivers, and managers of khans expect liberal backshish.

After a last breakfast with the hospitable M. Srabyan I took my seat in his carriage, for he insisted on accompanying me for a part of the way, while the kavass of the consulate rode in my drosky to see that my photographic

camera did not roll overboard. On the left of the road, immediately outside the inner line of fortifications, stands Gümüshli-kümbet, an old Seljuk mausoleum, and on the other side, farther on, Kel-kümbet, like a tower. Here and there, on mounds, are seen detached forts, belonging to the outer line of defence, the purpose of which is to guard the defile which opens above the town; and so we leave Erzerum behind us. The general impression one forms of the town is that it is peculiar and strange, but monotonous, and scarcely picturesque. The best view I saw over the town was from the American mission-house—a sea of roof parapets, chimneys, and minarets, all as grey as they could be, huddled up together, clumsy and solid. But it is necessary that the houses should be well built, for the inhabitants of Erzerum live on a high plateau with an extreme continental climate, where the thermometer may fall in winter to −22°. Fuel also is dear in the town, and wood and timber are brought from the Russian frontier, 66 miles off. The country is stripped and bare, and yet old men remember the time when the heights near Erzerum were still clothed with forest. We also met strings of carts laden with digged-up poplar roots, which are sold as firewood in the town. Poor people collect dung on the roads and paths, which here, as in Central Asia, is called *tesek*.

On the left hand stands the ridge Kirechlu, with the summit where the western Euphrates has its source, and at the narrow defile Deve-buyun, where the ascent begins to a small saddle, I bid farewell to the kind and amiable M. Srabyan, and mount my own drosky, driven by the reliable driver Shakir. At first the road is good and full of local traffic between the capital and the outlying villages to the east. But afterwards, when we come up to the hillocky, slightly snowclad heights, it becomes worse and worse, stony and uneven, and we roll as in a boat over ruts and lumps. Rime still lies at ten o'clock in the shade; the weather is fine, fresh, and clear. Mud lies only where streamlets run across the road, and elsewhere the road is dry. This year is said to be quite exceptional, for usually the country is already covered with snow at the beginning

20. Our Four-in-Hand on the Heights.

21. The Horses being watered from a Brook.

of November. Then people drive in sleighs to Bayazid. Now we might at any time expect a heavy snowfall, and for this reason the baggage was divided between two waggons, which might very possibly be snowed up in Bayazid till next spring; that is one of the causes of the high tariff for vehicles at this season.

Beyond Nebuchar-khani the watershed between the western Euphrates and the Araxes is passed, and we are now in a country which is drained to the Caspian Sea. Again we meet long trains of creaking carts drawn by black buffaloes — *jamush*. Telegraph-posts follow our route thus far, and inspire me with a longing for regions cut off from civilization. One wire runs through Zivin to Kars, the other to Bayazid. The road is now good again, hard and macadamized, and beside it arable fields stretch along the broad level valley begirt by low hills. In its trenches the water flows eastward like two canals. Kurujuk is a small lonely village of greyish mud cottages, with an impoverished and ragged population.

Following the brook Kale-su, a tributary of the Araxes, we come to the town Hassan-kale, situated at the foot of a small knoll, with a picturesque ruined fort perched on its top, which gives its name to the town. Here I was kindly received by the *kaimakam* of the district, the commandant, and the district engineer, who all three spoke good French. They took me a short walk through the town, where bazaars and several solid stone houses with balconies stand in the main street. The paving is sporadic, uneven, and loose, and is interspersed with deep holes and puddles of mire and dirt, smelling of rotting refuse. Even when the road is as dry as a bone out in the country, the streets of the town are filthy with all the refuse and dirty water thrown out, and gutters and drains are considered superfluous. Only close along the house walls can one make one's way fairly dry-shod. Outside the village is the burial-ground. Great pains are taken with the graves; each resting-place is adorned with two upright gravestones. Hassan-kale has about 7000 inhabitants, and a garrison of 400 men, mostly cavalry, with a battery.

CHAPTER VII

THROUGH DESOLATED ARMENIA

The road from Erzerum to Bayazid is considered very unsafe, owing to robber bands of Kurdish race, and Nazim Pasha had, therefore, increased my escort from two to six men. One of them was the chief of the cavalcade and followed my drosky with four troopers, while the sixth accompanied the baggage, a division appropriate rather to a guard of honour than suited for protection. At Hassan-kale the men were relieved for the first time, and the commandant wished to increase their number to eight, to which I objected. Our driving and mounted company is arranged so that a trooper accompanies each waggon, two ride in front of my drosky, and two behind. They are mounted on handsome horses, of which some are amblers which do not jolt their riders in the least, even when they are going at a smart pace; but one of my outriders has a heavy trotter which pounds along so that his Mauser rifle swings and beats the rider on the back at every step. Some of them carry their rifles across their knees or hang them over the saddlebow. Four men are horse soldiers, two gendarmes; it is a diversion to watch them during the long hours of the journey. M. Srabyan warned me not to lose sight of my escort. I must always have at least one man near at hand, for in these districts one can never feel secure.

In Erzerum better horses are to be found than on the coast, and the surrounding country has an old-established reputation for good horses, which are still sought after in the neighbouring lands. The nine horses I now had were

in all respects exceptional, especially the three piebalds which drew my drosky and made nothing of the journey to Emerakom. When our three teams of three horses and three vehicles came stamping and rumbling over the hard road, the turnout must have made a very fine and festive show. I photographed the whole party on at least a dozen plates, but, alas, this very dozen were afterwards spoiled by the jolting to which all the baggage was subjected during a wild drive in Persia. A cinematographic film was more fortunate.

After breaking the day's journey by a rest at Hassan-kale we drove on eastwards over a stretch of road so bad and so lumbered up with irritating cobble-stones that we could drive only at a slow pace. Here and there we passed through small lakes of flood water. Farther on the road improved and became occasionally excellent. At some distance to the right ran the Kale-su in its broad shallow bed. Villages, farms, and human beings there were none, except some grazing flocks of sheep with their shepherds; the country seems desolate and deserted, and yet ploughed fields lie everywhere in the valleys.

At length we come to the village Köpri-köi, with its lonely burial-ground. Just at the point where the Kale-su unites with the Bingör to form the Aras or Araxes, which for a long distance marks the boundary between Persia and the Caucasus and falls into the Caspian Sea at Kizil-aghach bay, the road passes over an old monumental bridge with six pointed Persian arches and resting on five columns. A slope runs from the bridge-head up to the middle, for the bridge is high and imposing, constructed of red stone and quite uninjured. It is a real work of art of its kind, a relic of a more fortunate or at least wealthier time in this country now so poor, where wretched mud houses and cabins are all that the art of building can attain to. But it may also be ascribed to the time of Theodosius, and when one stands on its topmost arch and sees the united stream wind towards the north-east, soon to force its way into the Caucasus, one can imagine what a grand spectacle the turbid waters must present when the snow is melting in

spring and they rush through the piers of the bridge with angry roar and foaming cascades.

Just when we pulled up at the bridge the sunset was bringing out striking effects. To the east a mountain ridge glimmered in shades of pink, with a white strip of snow on the crest and black spots formed by the shadows of a couple of clouds.

But the ruddy glow vanished from the mountains as the sun sank, and then they were seen only in dim pale outlines above the dreary naked land. While the surface of the earth already lay shrouded in the shadows of approaching night, the free floating clouds were illumined by the purple light of the sun, and stood out sharply against the bright blue sky.

For a while we follow the right grass-grown bank of the river, then diverge more and more from it and drive over undulating plain. Before us glitters from afar a snowy peak belonging to the Aghri-dagh, and below its summit the silhouettes of the outriders are sharply defined. At the moment when the upper limb of the sun is sinking below the horizon, the soldiers take out their cigarettes and become quite animated and talkative, and away we go down on the last bit of road, for now there is nothing to prevent the men gathering round the dishes and bowls of the evening meal immediately on their arrival.

At the entrance to the village a Persian caravan was getting ready in the dusk for its night journey, and the camels were being watered at a river. The animals stood in long close rows and looked as fine and picturesque as usual. It was half dark when we drove into the village and pulled up before the door of the inn, where a den with floor of stamped earth, bare mud walls, and a very suspicious bed with a still more doubtful mattress was placed at my disposal. This was a sign that we had left the region within reach of European ideas of comfort behind us, and now would every day plunge deeper into the real uncontaminated Asia.

On November 21 we drive on eastward, over open country sprinkled with hoar-frost and surrounded at a distance by low mountains. The way is good and hard,

but there are now no more bridges over the frozen water channels. Little by little the land becomes more diversified, and we go up and down over innumerable hills, across ravines and small erosion furrows. Before us rises a ridge which seems to close the valley, and beyond the village Yüsviren we ascend to the top of hills where the view is again freer. To the north extends the district Siane, where forest grows on the Russian side, and a road runs through the Sittahan valley to the Caucasus. In a hollow to the left is seen the small town Dijakrak. Now the land becomes again more and more hillocky, and the road winds in all directions and at all levels over and between hills and slopes down towards the valley bottom. We drive to the mouth of a valley like a yawning portal; its name is Deli-baba-boghasi, and it is called after the village Deli-baba, whither an irrigation canal runs off. *Boghas* means a throat or hollow way, and the valley is narrow and compressed between steep low mountain walls. Three times we cross the brook, and halt in an expansion of the valley to let the horses rest and eat barley from the nosebags carried with us.

The halt was evidently intended to allow the horses to gather up their strength for the difficult stretch of road which awaited us up the valley, where we drive now up and down steep slopes, now through the narrow valley. The road is generally so narrow that it would be absolutely impossible at some places to get past a vehicle coming towards us, especially at the bends, or where the erosion of the stream has undermined the road; the outer wheels are almost over the edge, and to save the carriage I have to stand on the step at the other side and keep the balance. The depth above the valley bottom is, indeed, quite insignificant; but still a man would be well bruised if he took a slide down the slope. A little farther up, the road is entirely destroyed, probably washed away by the spring flood, and therefore we drive in the pebbly bed of the brook, following all its windings. The ascent is steep, and the horses have as much as they can do: sometimes an axle sticks fast against a boulder; sometimes the way is so narrow that the driver must take care not to drive into

the sides. Here and there the brook is covered with ice, which is cut and splintered by the wheels, and retards our progress. We jolt, sway, and jingle upwards on our rough, tedious journey.

Then the valley expands, but the gradient is always steep towards the south; to the left we have the village Esheg-ellas, surrounded by tall haystacks. After a large valley junction our direction becomes easterly. The country is desolate and empty; here no travellers, carts, or caravans are seen. Shakir, my driver, remarks quite justly that there is no comparison between this road and that from Erzerum to Tarabuzun (Trebizond). But then the latter was laid by French engineers, while the road to Bayazid, like all Asiatic roads, is left carelessly to the wear and tear of the traffic, and no one troubles about its upkeep; repairs are neglected where damage is done, no stone embankments are constructed where there is danger of floods, and there are no bridges over the brooks.

Here and there shepherds watch their flocks on the hills scantily clothed with grass — we are in a part of Armenia inhabited by Kurds, who live chiefly by cattle-grazing. Taj-daghi raises its conical summit, regular as a volcano, quite close to the pass which separates the drainage basin of the Araxes from the eastern Euphrates. A solitary fox comes and looks out up above; he must know that troopers' rifles are not much to be dreaded, for he does not run away before the *on-bashi*, "commander of ten," or the leader of the escort, has sent three booming shots after him.

On the eastern side the road is better, and runs over soft hills of earth without detritus, and on the right, to the south, rises the snowclad crest of Mergemir-dagh. It begins to grow dusk, but Shakir says that our night-quarters are near, and this is confirmed by two disreputable Turkish soldiers who stand with arms grounded at the top of a knoll. They present arms as we drive past, and as soon as this imposing mark of honour is punctiliously paid, they take to their heels and rush down to the village to announce our coming; and when we drive in among the outermost cabins of Dayar, a crowd of men, women, and

children has turned out to gaze at us. Along intricate lanes we drive between scattered homesteads to the village inn, where a fire is hastily lighted in the grate of the wretched apartment. The fuel consists of dung compressed into cakes and piled up in beehive-shaped heaps outside every cabin. To light this fuel a handful of dry steppe plants is laid underneath and kindled.

The hundred low, grey, and wretched cabins of Dayar are built of stone and sun-dried mud, and are surmounted by flat roofs. The inhabitants are exclusively Kurds, and when they are asked what country this is, they answer Kurdistan; but they understand Turkish. The *kaimakam* of the place resides in the fortress, Toprak-kale or Alashgerd, at some distance to the north-east. Barley is grown around the village, which also possesses about 4000 sheep, besides cattle, buffaloes, and horses. It is reckoned to be three hours' journey to the Russian frontier. Bears, wolves, foxes, and lynxes occur in the surrounding mountains.

The escort and drivers put up in a stable at the other end of the village, but Shakir, who also does my cooking, stayed at the inn. He and the innkeeper, Suleiman, kept me company in the evening, and the latter related adventures he and his friends had experienced with robbers and footpads of Kurdish race. A couple of years previously Suleiman's brother had been attacked and slain between Dayar and Toprak-kale by a band of thirty robbers. According to custom, Suleiman took his brother's wife, and now had a little son by her.

Here the *on-bashi* and two troopers turned back, and were replaced by Kurdish riders of the Hamidieh militia, veritable bandits, in motley dress, and with untidy bandages round the head. When we drove off at half-past six o'clock the temperature was unexpectedly high, quite 39°, but the sky was overcast, and new-fallen snow lay on the mountains. Honest Suleiman, who is also the *mudir* of the village, received two bright medjidiehs for his services, and then off we went on a well-made road over gentle slopes. In numerous bends the road runs up to the little flat pass, Tahir-dagh, where only two thin patches of snow

lay on the ground. Shakir says that I am lucky; usually it is almost impossible to drive here at this season, which is too late for wheeled vehicles and too early for sleighs. Later in the winter the snow often lies three feet deep on Tahir-dagh, and then sleighing is fine sport. During the thawing of the snow, or after heavy rain, the road is, it seems, detestable, for then the viscous sucking clay forms a mud-bath, in which the carriage wheels sink to the axle, while lumps of clay, heavy and tenacious, cling to the wheels.

From the saddle of the pass we descend into a hollow, and then go up again to another pass of about the same height. On its eastern side we meet a Persian caravan of 315 camels, which occupies a third of a mile of road with its many detachments. All the leaders are men of Azerbeijan, speaking the Tatar language, and identical in type and costume with the Tatars in Baku. In ornamental halters, and with large red tufts, the camels stalk solemnly and slowly on their way seawards to the sound of their bells. In their wake follow three arabas laden with millstones, and each cart is drawn by four buffaloes.

To the south-east Ala-dagh's snow-crowned heights rise in front of us when we move down the headlong, dangerous declivities that descend from the pass. Every moment we are in danger of slipping, and one of our riders goes on foot to be always at hand to preserve the balance. It takes us an hour and a half to get down to a tolerable road, where, however, the springs of the drosky are severely tried amidst the rubbish and blocks of stone. With hurried steps a hunter is making his way up the pass; he is out to hunt foxes with his two greyhounds, which he leads in a leash; they are called *tasi*, and easily overtake foxes.

At Kuraldi half-a-dozen willows delight the eye, an unusual sight on this barren plateau. Haystacks dominate everything, and are much higher than the houses and tesek cupolas. Canal water is conducted through wooden pipes to two mills. In this country no fezes are seen at all; instead, lambskin caps are worn, and grey felt caps as in Persia, or nothing but a bandage wound round

the head. The Kurds are clad in tattered picturesque costumes, a faint reflection of the fresh colours of former times, in which blue and red predominate. Shirt, vest, jacket, wide white trousers and shoes—that is all; stockings are not worn as a rule. Women are generally veiled, but working country women do not cover their faces.

The village Abuset stands to the right of the road at the foot of a slightly snowclad massive, and through deep mire we slip gently on to Sedi-khan, there to rest. Now the Kurdish villages lie nearer together: Hoshian with a brook which flows to the Murad-su or eastern Euphrates; Toprak-kale, far to the left; Missiriyan, a nest of poor low cabins; Shamiyan, where the road is conspicuous as a black riband on the yellow land, intersected by ravines with transverse erosion terraces; Kilich-gedik, with a road to Van on the Van lake; Chilli-khan and Kazi, where the mud lies deep after recent rain. One can hardly speak of a road, only of ruts, deeply sunk, in the ground. The Sheriyan-suyi and several other brooks from the northern mountains descend to the Murad, the upper course of which is formed in this neighbourhood by streams flowing from various directions; they run through flat land and their beds contain little detritus, but erosion terraces a couple of yards high form small steep slopes over which the road passes.

At length the village Kara-kilisse, or "black church," came into sight, so called after an Armenian church which formerly stood here. The town is said now to contain three thousand inhabitants—Kurds, Turks, and a few Armenians. It is a centre for the Kurdish militia of the district, and has a very large garrison to guard the frontier towards Russia. The officials of Kara-kilisse turned up immediately with the usual kindly attentiveness — the commandant, *kaimakam*, and police inspector; the first mentioned, who spoke French, informed me that he had at one time been attached to the court of Prince Ferdinand of Bulgaria. The only sleeping-room of the inn was more chilly than usual, and to reach it I had to pass through the *kavekhaneh*, "large saloon," which was filled at

dusk to the last seat with bawling guests of doubtful respectability.

Beyond Kara-kilisse we crossed, on November 23, the considerable river Chor-su, and drove for a time over an excellent road which now and then tended to become a trench, but the pleasure was soon over. To drive on a road pounded into a bed of bottomless mud is bad enough, but if anything can be worse it is when the mud is frozen hard as stone. Such was the case this day, when the temperature was 24.1° at seven o'clock. Soft mud is worst for the horses, frozen for the drivers. The flakes of clay lay like slices of black pudding turned up at the sides of the ruts behind the last vehicle. The whole country was white with hoar-frost, and rime covered our carriages. It melted under the rays of the sun, and drops from the hood glittered like rubies in the sun, which at that time of the day was right in our faces. The morning was clear, but the sun was no sooner up than the whole sky was covered with clouds.

We mount between low, slightly snowclad mountains slowly through the broad undulating valley, and leave the river Murad at some distance on our right. Rattling and creaking, our train passes heavily and laboriously past the villages Junjali, Kazli, Bezireh, Mengeser, and Chüpkeran at the foot of the snowy ridge of Sinek-dagh. At the sight of these collections of wretched wearisome grey huts, one misses the handsome and proud Trebizond, the picturesque Baiburt, and the old dignified Erzerum, and one misses the wild bold relief of the coastal belt, here replaced by the desolate evenness of the plateau country. There is no longer any traffic; all is empty and deserted as though enemies' troops had ravaged the country.

We constantly make long détours out into the fields to avoid the road where the mud is rapidly softening in the warmth of day, and we drive through the Murad, which may now carry down about 350 cubic feet of water per second, and is said to be swollen in spring to a mighty river. On the left bank, which we follow, leafless bushes and grass grow, and there are innumerable tracks of grazing sheep. At Yilasor, where the people are

22. Kurdish Children.

Persians or *Ajem*, as they say, we are attacked by a pack of bold and spiteful dogs. The valley becomes narrower, the road often runs continuously along the edge of erosion terraces, and we hold ourselves ready to jump out if the soft material gives way under the outer wheels. The Murad has already the appearance of a considerable river, and we again cross the half-clear water to drive up the hills on the right bank. In Tashli-chai the people are also of Iranian descent. Beyond this village the road becomes quite ridiculously bad, for in the middle of a bottomless slough of mud the stones lie so thickly that it is impossible to avoid them; we sit and hold on, to be ready for the shocks and slips, and are astonished that the vehicle holds together, that the springs do not break, and that we are not upset. The moisture remains obstinately after the last rain, and sinks tenaciously into the loose earth. But Shakir consoles me with the information that it is ten times as bad after pouring rain, and that then it takes three days to drive from Kara-kilisse to Diadin. There is little pleasure in such a drive; one just sits waiting for a catastrophe; and where a footpath runs along the side and the driver takes advantage of it in order that at least one pair of wheels may be on dry ground, there is danger of being overturned into the middle of the mire.

Round Alighur large flocks of sheep are grazing, and unveiled women stand in the doorways and watch us as we drive by.

At the Armenian village Üch-kilisse, an old Persian bridge spans a stream in two arches. To the south Ala-dagh appears, a snowclad ridge with three small flat summits, where the river Murad-su, the true source of the Euphrates, rises at a height of 9020 feet.

CHAPTER VIII

WHERE THREE EMPIRES MEET

ALA-DAGH, "the high mountain," shares with Kirechlu, north-east of Erzerum, the honour of serving as the source of the Euphrates, famous in the narratives of the Bible and the oldest historical records, and celebrated in song among innumerable peoples and races. Certainly the two branches, the western and eastern, contain about the same volume of water at their confluence, but the eastern is considerably longer, and therefore the majestic river, the largest stream of hither Asia, and sister to the Tigris, may be held to derive its origin from the melting snow-fields of Ala-dagh, its turbid rivulets of rainwater, and its clear springs.

After varying fortunes on the Armenian highlands, the Kara-su and Murad, the western and eastern Euphrates, meet together just above the lead-mines of Keban-maden at a height of 2323 feet, and with combined force break through the Armenian Taurus. In narrow defiles, between steep, lofty walls of rock, the ever-increasing river forms a series of falls and cataracts, and at Birejik, where the river emerges on to the Syrian plain, and where many important caravan routes cross its course, its distance from the Mediterranean is only 145 miles. But from the mountain ranges of Lebanon and the Syrian coast the land slopes eastwards, and therefore forces the great river, which at Rakka is a couple of hundred yards broad, towards the south-east, and to make for the sea by a much longer way. At Ed Deir the first palms grow on the banks of the Euphrates, and at Werdi the river is two-fifths of a mile

broad, and often encloses flat islands. Below Hit, where the river carries as much as 70,000 cubic feet of water per second, numerous irrigation canals run off on both sides, for here the Euphrates flows entirely through flat alluvial land, and only at Hilleh is there a last ridge. Its grey, turbid water, which is highest in May and lowest in November, forms along the banks extensive marshes and lagoons overgrown with reeds, which are a hindrance to navigation. But the natives carry on their traffic on rafts floated on inflated sheepskins. At Korna the Euphrates and Tigris meet to form the Shat-el-Arab, and when the river falls into the Persian Gulf beyond Basra and Mohammera, it has accomplished a course of 1700 miles.

The classical Babylonia—Chaldea, Mesopotamia, the Irak-arabi of the present day—lies desolate, dusty, yellow, and scorched by the burning sun, between its rivers; and this land, now fallow for two thousand years, was formerly, according to cuneiform inscriptions, intersected by a network of irrigation canals, which made it a mosaic of fields and gardens where wheat yielded a hundredfold, and juicy bunches of dates ripened among the crowns of the palms. Stones, digged out of the dry earth in whole libraries by explorers of modern times, still speak of peoples and dominions of bygone centuries. In this land the learned lay the scene of the Flood, and according to the first book of Moses, chapter xi., Noah's sons proposed to build a tower—the tower of Babel—which should reach from earth to heaven; but in His wrath God confused their tongues and scattered them abroad over the world. Here sprang up the proud and splendid Babylon, and flourished in the time of Nabopolassar and Nebuchadnezzar till after the clash of the arms of the Assyrian conquerors had sunk into silence. New peoples and new monarchies succeeded one another on this ancient stage; the Persians took Babylon, and the victorious Alexander proposed to build up the town again, with its strong walls and broad, regular streets. Now, Birs Nimrud and Hilleh are all that is left of this focus of power and glory, artistic skill, learning, and civilization.

Not less rich in proud memories are the banks of the

Tigris, which springs from the Armenian Taurus, not far from Telek on the Euphrates. Here Nineveh flourished, the capital of Sennacherib, Esarhaddon, and Sardanapalus, and in Ctesiphon, Parthians, Romans, Sassanids, and Arabs ruled in succession; but of this former splendour nothing is left but the ruins of Tak-kesra, which shows its beautiful arch in all directions as one slowly ascends the Tigris in the steamboat. And over against it, on the right bank, rises one of the populous towns of old times—Seleucia, founded by Seleucus I. Nicator, and destroyed during the campaign of Trajan in the year 162. Still to-day both the rivers have their towns of high reputation in the East. Bagdad, Dar-es-Salaam, the "place of blessing," capital of the Abbasid khalifs, founded in the year 763 by Almanzor, attained in the ninth century, under Harun-al-Rashid, to the height of its renown, which, thanks to the tales of the *Thousand and One Nights*, is not yet extinguished. Here, too, in the course of ages a succession of conquerors and monarchies succeeded one another. In the year 1258 Bagdad was taken by Hulagu Khan, grandson of Jenghis Khan, a hundred and forty years later by Timur the Lame, at the beginning of the sixteenth century by Shah Ismail of Persia, and in 1638 by the Sultan Murad IV. The town is still in Turkish hands, Nadir Shah, elsewhere victorious, having failed in his attempt to again annex Bagdad to Persia. Now, Bagdad is a commercial town of little importance, which, however, when the Bagdad railway is completed along the Euphrates to Basra and Koweit, may look forward to revived prosperity and become an important point on the way between Europe and India. Still more famous than Bagdad, at least in Persia, is Kerbela, not far from the right bank of the Euphrates, for hither crowds of Shiite pilgrims flock, both living and dead, to pay respect to the grave of Hussein, and sleep in its precincts. He was the second son of Ali, the fourth khalif, and perished in battle against the Ommeyads in the year 680.

These, then, are grand memories which haunt the banks of the Euphrates, going back to the greyest antiquity, to the first historical appearance of the human

23. A Group of Kurds.

24. Bayazid.

race upon the earth; and from the treacherous road along the Murad-su the traveller looks up, not without reverence, to Ala-dagh, from whose snowy peak the eternal river commences its course through a land which from immemorial times has been the scene of vanity of vanities, bitter strife, flourishing and decaying kingdoms.

Nine graves beside the road make a dismal impression in this wilderness. In answer to my inquiry, Shakir informs me that last year a party of Armenians made an incursion from the Russian side, and from an eminence fired at the Turks who stood on the defence, killing nine of them.

The Euphrates winds through a broad hollow below us, and the road on its right bank terrace would be excellent were it not for the ravines which so often cross it. Beyond Karka-bazaar the huge cone of Aghri-, or Egri-, dagh appears in a gap in the northern mountains; its majestic summit is veiled in clouds and its flanks are covered with snow. In front of us, to the north-east, now rises one of the most famous mountains of the world, which, at least in Christendom, enjoys the same reputation as the holy mountain of the Tibetans and Hindus farther east. It is Ararat. We are still forty-three miles from it; soon we shall come nearer. Now it stands out dull and pale against the background of the darkening sky and clouds, which, parting and dispersing in other directions, seem to be preparing to form at night a canopy around the holy mountain. The chain to the south, about the source of the Euphrates, affords a more attractive spectacle; the refracted rays of the setting sun produce a wonderful play of colours in pink and blue tints on the clouds which hover over the snow-capped crest.

The last stretch of road is excellent—dry, hard, and even; Shakir slackens the reins and the horses speed along at a rattling pace, alert, snorting, and sweating, and eager for the mangers filled with barley and hay. The waggons lag far behind us, and the troopers of the escort have hard work to keep up. The two in front turn constantly in the saddle to see that they keep their distance and do not get suddenly entangled in the team. The sun

is low and they want their supper. On the plain before us a still greyish-blue veil of smoke indicates the proximity of a town, and soon the stacks of dung with their domed tops appear out of the smoke. A few minutes later the team stands trembling and shaking their heads before the *yus-bashi*, or house of the headman, where we are saluted by barking dogs, women, and children in red tatters, and officious soldiers. These, and a resonant bugle-call indicate a garrison town, and here, in Diadin, it seems that two regiments of Hamidiehs are stationed. In a comparatively cosy room I am waited on, as usual, by the authorities, one of them a lieutenant who has learned French in Constantinople and is remarkably outspoken. He says that the country is impoverished by bad administration, and that it is impossible to understand the Sultan's intentions. Only in one respect do the Sultan's views coincide with his own—in hatred of the Armenians, who cherish the same feeling towards the Turks. This is a mutual national aversion, which cannot be extinguished till one race becomes the slaves of the other, and meanwhile implacable dissensions bring the country to rack and ruin.

On November 24 the sky is brilliantly clear, and immediately beyond Diadin we commence the ascent up to a small secondary pass, from the top of which there is a charming view of Ararat, most of it lying in its own shadow of dull greyish-blue tints, with the light azure-blue expanse of heaven as a background. The sun-lighted slopes are dazzling white, and contrast sharply with those in shade. To the right of Great Ararat is seen Little Ararat, of a still more regular conical form, and to the west a smaller crest with a little snow. On this side of the famous mountain stand some lower elevations which, however, will presently hide the magnificent view.

Ararat, or, more correctly, Airarat, "the plain of the Aryans," is the name given from time immemorial to the high land on the middle course of the Araxes, and when it is stated in the first book of Moses, chapter viii. and verse 4, that Noah's Ark rested on Ararat, this high land is really meant, and the name has been in Europe im-

properly transferred to the mountain. The lofty summit, on the other hand, is called by the Armenians Massis, by the Turks Aghri-dagh, and by the Persians Kuh-i-Nu, or Noah's mountain.

Both Great and Little Ararat rise from a volcanic plateau, and are connected with each other by a lower ridge. For the rest, Ararat is an almost isolated volcanic cone, consisting of trachite, slag, and lapilli, and it attains to a height of 16,916 feet. There is no crater at the very top; near it stand two small subsidiary summits which only look like inequalities on the regular surface of the cone, and the latest eruptions of lava, which probably occurred in prehistoric times, forced their way out below the snow limit. This lies on the southern side at a height of 12,900 feet, and on the northern at 13,700 feet, whereas Little Ararat, with its height of 12,841 feet, is quite free from snow in summer. The Armenians believe that the peak is inaccessible and protected by spirits, but in fact it was climbed as long ago as 1829 by Parrot, and many explorers have ascended it since then, and subjected the mountain to a thorough investigation.

Ever since 1827 Ararat has been the meeting-point of three empires,—Russia, Turkey, and Persia,—but so that the peak itself stands in Russian territory. Here one can stand with the left foot in Russia and the right in Turkey, and plant one's staff on Persian ground.

Our teams carry us on towards the east, the troopers' horses tramp through the country, and Ararat plays bo-peep with us, its summit now appearing, now vanishing behind intervening mountains. Now it sinks behind the dark outline of a ridge as we drive downhill, soon to crop up again as a brilliant back scene between two hills, one of which again hides the mountain with its mantle of eternal snow and its just as enduring legends. When we double a projection on the left Ararat once more is seen in all its grandeur.

Over a small pass the road runs, hard and good. Down below on the level plain we meet a Persian caravan, and its Tatar guides reckon it twenty days' journey to Trebizond—if there is no *chagmor*, or mud, they say. A

camel which shies at the drosky twines its tethering-rope round a telegraph-post, and is nearly throttled, when a leader at the last moment severs the rope with his kinjal. Ararat appears and disappears again behind the adjacent hills, when the country beside the road becomes more undulating. Farther on, the road is made rough by lumps of tuff and slag, which cover the land like black spots and here and there form knolls. Every hour in the day the magnificent cone shows itself in all its vast dimensions, all details standing out with the greatest sharpness, the various creases in the smooth fields of snow and the dark fissures farther down. The low snow-line of winter is clearly marked. The desolate and silent landscape, where no villages and no travellers are to be seen, is entirely dominated by Ararat, which holds my eyes entranced.

Shakir turns round on the box, points with his whip to the south-east, and says, "Iran yolli pasham" ("The road to Persia, sir"), and beyond two more stony hills we come down again to the perfectly level plain. Now not the smallest hillock stands between us and the foot of Ararat; we see the whole of the mighty cone from its base on the tableland up to its summit, and we are close to it, only a *meidan* intervening between the road and the mountain. From the southern mountains spurs and offshoots are thrust forward. We cross deep steep-sided ravines; to the left is seen, through a gap in the northern mountains, the road to Igdir, which skirts the western foot of Ararat. Still more imposing shines Ararat in the dazzling whiteness of its shroud of snow. The road is now at times smooth and even as a highroad, and before us stands the chain of Bayazid, with its partly jagged and pinnacled crest.

A slight cloud of smoke could be seen in this direction even from the small threshold crossed in the morning, indicating the position of the town, and after we had passed some more small spurs separated by gullies Bayazid and its walls came in sight among rugged fantastic heights. A marvellous site! The small town seems to have clambered up the mountain flank between rocky projections, where the houses rise in tiers one

25. Ararat from the South.

above another, and hang like swallows' nests over precipices and abysses. At the foot we pass an old quadrangular fort with round towers at the corners, and then mount up among knolls and over yawning ravines. A small ridge north of Bayazid now hides Little Ararat, and also threatens to conceal the main peak. It extends farther and swallows up the mountain bit by bit—how vexatious that Ararat cannot be seen from Bayazid! But I console myself by the thought that from any road I choose I shall behold this holy mountain, whose name is learned by children in all the Christian schools in the world, and on whose summit the pious believe that Noah's Ark rested when the Flood had accomplished its task of drowning all the rest of mankind.

Only the very top of the peak is now visible, and that, too, soon vanishes when we mount the winding curves, between mounds, up to this swallows' nest of a town. Beyond a purling brook stands the valley of the dead, the burial-ground; we leave the silent gravestones below us and ascend still higher to the dwellings of the living. In a gap to the left the top of Ararat glitters for a moment and then disappears. The road turns in all directions up the slope, and at last we are up in this singularly picturesque little town, drive through the bazaar with its busy movement, tattered, faded costumes, Oriental types, open stalls, and excessive filthiness. A narrow street, an open, terraced road with a view down into the valley below, a lumpy rise, and then Shakir halts at the gate of a fine house, which is the Russian Consulate.

Here I was received with great hospitality by the Russian Consul, Mr. K. V. Ivanoff, who watches over the interests of Russia at this eastern outpost of the Turkish Empire. The Vice-Consul Akimovich, my friend of the strike time in Batum and Poti, had arrived six days previously *via* Erivan. I had therefore lost a week by going round through Trebizond, but I had acquired much valuable experience, and I by no means regretted that I had not stayed and waited at Poti. After hasty visits to the *mutaserriff* of the town, the governor of the *sanjak* or district of Bayazid, and to the discreet Persian consul, I accepted

with pleasure M. Ivanoff's friendly invitation to stay a day in his hospitable house. The last days' journeys as far as from Erzerum had been rather trying, and it was pleasant to sleep on for one morning and let the rattle and rumble of the road die out of my ears.

After the Mohammedan gentlemen had returned my call on the following day, we went out to have a look at the singular little town, which stands at a height of 6700 feet, 18 miles north-east of the still active volcano Tandurek or "the little furnace." Bayazid is said to be inhabited by 800 families or 6000 persons, of which 350 families are Kurds, 250 Armenians, and the rest Turks, Persians, Caucasians, and members of the garrison. A road runs between Bayazid and Üch-kilisse to the north of Diadin which, it seems, is better and more level, but longer than the way I came, and from the soft ground it traverses is called *ipek yolli* or "the silken road."

At the Russian Consulate visas are granted yearly for only two hundred passports, mostly for Tatar caravan leaders who are Russian subjects, and are engaged in transit transport. M. Ivanoff informed me that a third of the men and camels which travel yearly to and from Trebizond have their homes in the Russian provinces of Erivan, Sharur-daralagöz, and Surmali. The other two-thirds are from Persia. When the Russians, to encourage their own trade and exclude foreign competition, closed Batum as a free port in the year 1890, the old caravan road through Trebizond and Erzerum received a great stimulus, though even now, as we have seen, only a fifth as much merchandise is transported along it as in the days before the Caucasian railway was opened. A severe blow was also dealt to this route when the line was opened in 1902 from Tiflis to Erivan, and trade found a convenient road from the Black Sea to the country round Bayazid. The only difficulty that arose was that oxen and carts were not allowed to pass from the Turkish side of the frontier to the Russian for fear of cattle plague, but in the year 1906 this prohibition was to be removed, and then communication would be unhindered. Already Russian caravans were passing with sugar, petroleum, and other goods to

Tiflis and Van. Russia has also other commercial interests on a large scale to watch over in this country where three empires meet. Along the valley close to the western foot of Ararat, and farther along the *ipek-yolli* and the Murad and through ancient Assyria, there is a route marked out by Nature for a railway to Bagdad, which might become a formidable rival to the German Bagdad line. It is really from this point of view that Bayazid is of importance to Russia, and one cannot help noticing the well-ordered system of observation instituted by the Russians in these parts of Asia.

Already Russians can feel pretty much at home in Bayazid, for they have captured the town four times, in 1828 and 1854, and on April 29, 1877, when Colonel Shtockvich occupied the town and citadel without striking a blow, but in June evacuated the former to defend himself in the latter with a battalion against the superior force of the beleaguering Turks. The water-supply was cut off, and only with great danger could water be obtained from a point much farther down. The provisions came to an end, but still the besieged refused to capitulate. An Armenian who is still living in Bayazid informed the Russians that relief was on the way, and this news revived their courage. It was General Targukassoff, of Armenian birth, who was approaching, but his force was too small, and, to make a more imposing appearance, he collected a quantity of carts, tents, and camels, in fact a baggage train, which might make the enemy believe that he had a strong force at his command. The division of 18,000 Turks which lay at Kizil-dise, $2\frac{1}{2}$ hours' march from Bayazid, allowed themselves to be outwitted, and did not venture to attack. Targukassoff reached his goal unharmed, and found that the Turkish besiegers had taken up a position on a flat-topped height above the citadel, where they could fire on it without being themselves exposed to danger, for the ammunition of the besieged had given out. Targukassoff's Cossacks climbed the ridge above the town, where ruins of Kurdish fortifications are still to be seen, and thence opened a murderous fire on the Turks and freed the distressed garrison. With it Targukassoff managed to

get away neatly before the Turkish division in the neighbourhood were aware of the successful stratagem.

In October of the same year the Russians once more took possession of the town, but restored it to Turkish hands after the war. It seems as though the Turkish authorities feel themselves to be temporary and insecure guests in a place which the Russians have shown that they can take whenever they please.

CHAPTER IX

BETWEEN ARARAT AND ALAGOZ TO ECHMIADZIN

During my short stay in Bayazid news came to the Persian consul that 1500 armed Kurds and Turks at Kasli-göll, a customs station, had made a raid into Persian territory, in order, it was said, to exact punishment for similar liberties taken by the Persians on the Turkish side. The consul begged me to inform the Valiad, the Crown Prince, at Tabriz, of the disturbances on the frontier, and at the same time to remember to give him, the consul, the best recommendations—it is by protection and nepotism that men raise themselves to the pinnacles of power in the land of the lion and the sun. However, I had no particular reason to blunder right into the middle of plundering Kurdish hordes, and did not change my original plan of taking the road, three days shorter, through Julfa to Tabriz.

On November 26, in the company of the customs officer, A. Chr. Kostsinich, who was returning to the Caucasus after a short visit, I left the hospitable consulate, from the roof of which the Russian flag fluttered proudly in the sun. Now we get away downhill, and the bright white peak of Ararat peeps out between two hills. We make northwards over a plain which is little suited for vehicles. In some places there is no road, not even a cart rut, but only a conglomeration of pits, ditches, irrigation canals, ridges remaining from old ploughed fields, small mounds, and ravines with steep sides. With his usual calm assurance, Shakir takes long détours in search of better places, where the drosky's springs are less liable to

snap. Now I have only two Turkish troopers as escort, and they are to turn back at the frontier. They are of no use, know nothing of the road, and cannot tell the names of the villages.

Here and there the road is covered with fragments of tuff, and after we have passed an intervening projection Ararat stands out grandly to the right of our course, now nearer than ever. A little to the east of the road lies a marsh overgrown with yellow reeds, and Gyll-Tepe, or "hill of flowers," is a village at the foot of a small elevation. Asses and their foals are grazing on the dreary steppe about it, and here and there ridges of volcanic blocks lie in our way. We pass the village Ahmed Agha, near which is a black tent like those of the Tanguts on the Koko-nor, and at Kara-bulak we reach the Turkish customs station, where a peremptory gentleman takes on himself airs and says he must search all my baggage. He calms down, however, after looking at my papers, and contents himself with taking a pound and a half in pledge from the drivers, to make sure that they do not migrate to the Russian side. One of the waggon drivers, an Armenian, has to stay behind at Kara-bulak, for Armenians are not allowed over the frontier in any direction.

The greyish-blue smoke cloud from the chimneys of Bayazid still hovers over the little town, which is visible far to the south, while the country to the east, towards the Persian frontier, seems quite flat and open. Now commences the rise to the frontier pass, and Kurdish shepherds and their sheep are seen on both sides of the road. The hills are already bestrewn with fragments of tuff, but the higher we ascend the worse they become, and at length large volcanic blocks lie so close together that it is no longer possible to steer our way between them. To drive over stone blocks on level ground is difficult enough, but uphill it is maddening. To me it is a perfect puzzle how the carriages withstand the trial that awaits them here. The horses strain and struggle with all their power, and before we have gone far one of the traces of an outside horse breaks, and while it is being repaired I follow the baggage waggons on foot. One of them is almost over as it goes

a little too fast in this vile ground; the wheels on the near side are suddenly lifted up by a bump, and the vehicle would capsize after remaining suspended a moment on the off-wheels, were it not that at this moment the front wheel comes in contact with a block and the carriage is brought back to an even keel. My valuable instruments hang between heaven and earth, and it is wonderful that nothing is broken or cracked during such a drive. Up and down, over stones and boulders, over firm rocks and down into treacherous pits, the vehicles groan and screech and rattle, rolling like ships in a high sea.

The gradient becomes less steep, but the ground is just as much encumbered with boulders; the last bit, quite close to the pass, is a little better, and at length we are up at the stone pyramid which marks the frontier between Russia and Turkey. Behind us and below us to the south are seen plains with marshes, and blue reed-grown lakes on a yellow foundation.

Chingil is the name of the Russian frontier post, where eighteen Cossacks and two customs officials keep guard. Here also there is a small reedy pool, and Jilli is a Kurdish village in the neighbourhood. The first stretch of road beyond is stony and level, but at the fifth verst post it goes down headlong, and one is amazed at the extraordinary steepness, and astonished that it is possible to drive down such hills. The view over the valley of the Aras or Araxes is remarkably extensive, and to the north Alagoz raises its bell-shaped cone 13,465 feet high, an extinct volcano with a crater full of sulphur and a sharply marked snow-line.

It grows dusk; shadows on our mountain pass over the hills, and slowly ascend the southern flank of Alagoz. Fields and strips of various colours, now belts of vegetation, now screes of detritus and ridges, extend down to the bottom of the deep valley. The drosky rolls gently and easily down the zigzags, Shakir keeps the horses in hand and sits as upon thorns, and the horses make short thrusts with their forelegs to keep back the carriage. A votive pile of stones and rags, a *mazar*, is erected beside the road. Down below is seen a village of white houses; it

is Argov. The peak of Alagoz is like a light cloud, hard to distinguish from those that float below the azure of the sky; but the sun still illumines brightly its snowfields, while all the country round is sinking to sleep under the dark veil of evening.

It grows dark and fresh, and we are enveloped in impenetrable night before we pull up before the customs house of Argov, where the chief shows me the greatest hospitality, and begs me to come in and drink a cup of tea before I go farther, for there are still twelve miles to Igdir. Meanwhile he makes two horsemen of the frontier guard saddle their horses, and when we start again one of them rides ahead with a light, and the other behind the waggons to see that nothing falls off. Now we drive freely, for the road is good; the stars shine clearly, but the villages and farms are recognized in the darkness only by the packs of dogs which, barking furiously, dash after the vehicles.

At last we reach Igdir, and I put up in a tidy Russian *gastinnitsa*, visit the *uyesdni nachalnik* or district commander, an agreeable captain, and sup with him and his family.

On the morning of November 27 I bade farewell to Shakir, who had driven me so well all the way from Erzerum, and to the other two drivers. They had passports from Bayazid to allow them to cross the frontier; but they were dreadfully afraid of the Armenians on the Russian side. They received liberal presents, and their gratitude was unbounded when I succeeded in obtaining permission for the two Russian soldiers to conduct them to the frontier. Shakir believed that the rogue of a customs officer at Kura-bulak would not part with the pound and a half he had taken as security for their return, and I therefore wrote to the French vice-consul in Erzerum that in such case the customs official should be forced to do his duty.

Igdir has 6000 inhabitants and 800 houses, and did not tempt me to make a longer stay than necessary. I left the little town with three carriages and nine horses, and drove along the excellent highroad which runs all the way to the railway. The wayfarers and countrymen one

meets here are mostly Tatars, but the eye also lights on Kurds or Caucasians, easily recognizable by their characteristic costumes. And buffaloes and oxen tug at their creaking carts and waggons just as in Asia Minor, and Bactrian camels, cattle, and sheep graze or are used in transport. Cultivated fields stretch far and wide as we drive over a small bridge across an irrigation canal; one of these carries a large volume of water, and is thrice crossed by the road. On the left hand we pass by the Tatar village Jokjalu, and the peak of Alagoz has to a great degree lost its imposing aspect of yesterday, when we saw the mountain from the pass, and the eye could rove over the long flanks which now, foreshortened, seem more flat and level. Ararat, on the other hand, is magnificent, and presents itself in dull outline just under the sun with light steely-blue tints, here and there interrupted by bright silvery patches, prominences, and irregularities, on which the snowfields are struck directly by the sun's rays.

At the Armenian village Markara we cross the Araxes by an iron bridge laid with wood. At this season the river looks very small, and seems not to have increased since we crossed it at the old arched bridge of Köpri-köi; its turbid water rolls slowly down towards the Caspian Sea. And on we travel over the well-kept, somewhat dusty road, so different from the muddy roads we jolted over in Turkish Asia. We are approaching a great artery, as is evident from the more lively traffic, small camel caravans, carts laden with salt and other goods being forwarded to the railway, homesteads lying closer together, and gardens protected by mud walls. By a smaller bridge we cross the Kur Arax, or "Dry Araxes," an arm which formerly accommodated the whole river, but where now only a riband of clear stagnant water is left. Near the Tatar village Kalkhun we come to the railway at the station of Echmiadzin.

It was only ten o'clock, and as the train to Nakichevan did not start till three, I had time to pay at least a hurried visit to the famous old monastery of Echmiadzin. One of the drivers from Igdir undertook to carry me there, and,

just as we were setting out, two Georgian merchants appeared who had a wine-cellar in the monastery village, and asked to be allowed to go with me, as otherwise they would not be able to find means of getting there. I readily agreed, for they might serve well as guides, and tell me all they knew of the state of affairs in the Caucasus. To begin with, they initiated me into all their private affairs, and told me that they were owners of large vineyards in the district. The wine, which is worth 10 kopecks a bottle on the spot, is exported to European Russia, and yields on an average a yearly profit of 12,000 roubles (about £1200); but this year their income, owing to the strikes, would not exceed 8000.

Meanwhile we were driving through the Tatar village Taturnagh, through cultivated lowlands with active movement and desolate tracts where the soil lay fallow; and at length the church tower of Echmiadzin and the cloister buildings stood before us, and we drew up at the main gate, where I parted with my chance companions, and was conducted by an Armenian to a large court, to be welcomed by a pleasant and kindly monk, who offered to show me as much as he could in an hour's time.

Echmiadzin, "where the Only-begotten Son descended," was founded in the year 301 by the apostle of Armenia, Gregory, and became in 1441 the seat of the *katolikos* or the patriarch of the Armenian-Gregorian schismatic church, as well as of the holy Armenian synod. The monastery is divided into three sections, each with its church,—hence the common Turkish name *Üch-kilisse*, "the three churches,"—and is partially surrounded by a fortified wall with small towers. In the interior of the principal church or cathedral, a small tabernacle, resting on four columns, marks the place where the Redeemer descended from heaven in the year 301, revealed Himself to the Apostle Gregory, who won over King Tiridates to Christianity, and pointed out the site where the church should be built. It is erected on a cruciform plan, under a cupola, in Byzantine style, and its interior decoration is very simple and unostentatious.

The grave black-clad monk who showed me round informed me that the cloister has now only 35 monks, who

observe the rule of St. Basil. The *katolikos* or patriarch, an old man of eighty-five years, who happened to be staying in Tiflis, was evidently the object of deep reverence; his portrait in different forms was to be seen wherever we went.

Echmiadzin has a theological seminary, a school, printing-works, and a library, as well as a hostel for pilgrims; for every Armenian must make a pilgrimage to this monastery at least once in his life. Here is also a museum which we hastily inspected. Among many objects that are certainly rare and singular is exhibited rubbish of trifling value or quite worthless. Our attention is particularly attracted to a number of stone tablets with cuneiform inscriptions found on Armenian soil, old pedestals and capitals of columns and other architectural remains, clay vessels, faience, coins of several Eastern countries, ancient ornaments and objects of metal; Persian decorations and vessels in the form of peacocks from the days of Shah Abbas, porcelain, together with modern photographs of Armenian priests, worthless pictures presented to the monastery from other countries where Armenians dwell, an old shrine, holy pictures, and banners and other ecclesiastical objects; and, moreover, serpent skins, rats, weasels, and lizards in spirit, which seem out of place here; a human skeleton with some old rusty links of a chain, which has been digged up in Armenian territory, is exhibited to the eyes of the visitor among other curiosities. Some silver rosaries, offered at the grave of some prominent priest, are hung up in a press.

Within the same building is housed the library, which contains many valuable manuscripts in the Armenian tongue. The most precious treasure is said to be a Bible on parchment of the tenth century, preserved in ivory boards carved in the fourth century. The articles in many of the cupboards with glass doors do not seem to be arranged in any strict order. Several manuscripts and archives are set out on a long table in the centre of the library hall, and it is said that learned visitors often sit here for days together turning over the treasures of the library. At present there is not a soul except the librarian,

a tall black-haired brother of interesting appearance. With great eagerness he drew my attention to a photograph of three cash-boxes broken open by force, which evidently was intended to produce a sensation; and he added the following explanation, for the truth of which I will not vouch. In the year 1903 the governor-general of the Caucasus demanded that the treasures of Echmiadzin, amounting to nearly half a million roubles, should be sent to Tiflis to be in future administered by the Russian authorities. There was no intention of robbing the monastery of its ready money, for the revenue of the capital was to be placed at the disposal of the monks as they required it. But the monks and archimandrites refused to consent to such a proceeding and to give up the keys of the money-chests. Then the governor-general caused them to be forcibly broken open and the treasure to be sent to Tiflis, an action which excited the strongest ill-feeling throughout Armenia, and was in great measure the cause of the numerous assaults made by Armenians on Russian officials during the two preceding years. The new governor-general has restored the treasure, and thus pacified the Armenians.

Outside the principal church stands a fine memorial in marble, erected over the grave of a Sir —— Macdonald, who died in Tabriz in 1830. Echmiadzin was captured in 1827 by Paskevich, during the war with Persia, and has remained in Russian hands since the peace of Turkmanchai in 1828.

But time had quickly slipped by, and I did not wish to miss the train which runs only three times a week to Nakichevan, so I had to take a hasty farewell of the friendly monks and leave the ancient cloister, with which I was much disappointed; and I drove back the way I had come, reaching the station an hour before the train was timed to depart. That was enough, I supposed, to get ready my baggage and take my ticket, but there was no one in the station-house but the telegraph clerk and the buffet attendant; the stationmaster came sauntering leisurely up at the last moment, and declared with astounding arrogance that it was too late to get ready such a large

quantity of luggage. I represented to him that I had come in time, and that he had no right to leave his post, and said that I would report him to his superiors in Tiflis if he did not contrive that I should travel by this train, running in connection with the one from Ullu-khanlu, which on the following morning would proceed to Nakichevan. But the man was simply a blockhead, and in answer to my threats gave the signal for the departure of the train. The telegraph clerk, who, like all the other servants of the station, was at loggerheads with the stationmaster, informed me that a luggage train would leave in about an hour's time, and I bribed the men in charge to take me and my baggage to Ullu-khanlu.

We arrived at this den of thieves in the dark, and here there was no place where I could find shelter. The stationmaster, a Caucasian bandit, was willing and pleasant, and unlocked for me a second-class carriage where I could spend the night, but declared that he could take no responsibility for my luggage, for there was no warehouse in the place, and here men stole and appropriated anything they could find. There was, then, nothing for it but to engage some Russian and Georgian workmen for ten roubles to be answerable for my baggage, which was placed for the night in their hut, where ruffians and womenfolk lead an awful life. Then I was conducted by a Russian porter to my *coupé*, fusty, old, and dirty, and, as he gave me warning, full of vermin. He kept me company for two hours, and was very entertaining with his liberal views and his thrilling descriptions of slaughter and bomb-throwing in Tiflis at which he had been present, and from which he still bore as a remembrance a gunshot in his leg.

When at last he took himself off with his dim lantern he advised me to fasten the compartment from inside—he would return immediately with the key—for in this country no one is safe, he remarked, and "of course you have money." Certainly gendarmes kept guard over the carriages which stood on the track, but one could never know, and last night some scoundrels, just when the gendarmes were away drinking tea, watched their opportunity to break into a carriage by the window and steal a sum of money,

which fortunately did not amount to more than seventy roubles. "It is best to lock the compartment," he said, and vanished in the darkness, never to return.

I made myself as comfortable as I could on the seat, lay and read a while by a smoking tallow candle, and then slept peacefully on a bench with my revolver handy. Stealthy and uncertain steps were heard sometimes round and underneath the carriage, and once some one sneaked up on to the back platform. At midnight a couple of men got in with a lantern and proceeded to make themselves at home as I had done; they were passengers for Nakichevan. A proper night's rest was accordingly an impossibility, and with the first break of dawn I got up, stepped out and walked along the platform to an open-air buffet, where I procured a glass of tea, with bread, *zakuska*, and grapes. I rather regretted that I had not travelled direct to Persia instead of skirting the outermost limits of the Caucasus, and passing through a corner of it inhabited by adventurers, outcasts, and ruffians.

CHAPTER X

TO NAKICHEVAN, THE GRAVE OF NOAH

Before a table in the open air pressed crowds of Armenians, Tatars, and Caucasians, standing and waiting to get their luggage registered for the journey to Nakichevan; and the potentate who had the oversight of the goods department issued his orders like an Asiatic despot. At Echmiadzin I had heard, too late, that the stationmaster there performed his duty only in return for coin, but wise by experience, and to avoid the crush among the mob, I slipped a new ten-rouble piece into the hand of his colleague in Ullu-khanlu, and at once received all manner of attention and respect. Two men were ordered to weigh my baggage and pile it up in the van, and when I had seen this closed by its doors and bolts, I returned to the compartment where I had passed the night and took my place with two travelling bags in a corner.

There were six places in the compartment, but I could not get a side to myself as I had hoped. A Russian engineer was my brother in misfortune in the opposite corner, and then the carriage was filled up by Armenians and other worthies with women and children. When the train at length started an hour and a half late, tickets had been sold for twice as many passengers as there were vacant seats. Fresh passengers came constantly, tumbling in neck and crop, the time-table was only a specious pretence, and even an hour after the time the ticket-office was besieged by men of more than doubtful aspect and women of Caucasian and Mongolian race.

We were well off for people: three old women were

in our company, one crouching on a pile of bundles and with other bundles as a footstool, another weak and feeble and well packed up among tightly stuffed quilts and ticking, the third of unnecessary girth and greasiness and adorned with bread-crumbs in her moustaches; also a young wife with three children and another with a baby, which at any rate kept quiet while the others played about, clambering over the bundles and chasing one another like small wild-cats through the overfilled compartment, the atmosphere of which was not improved by the vile cigarettes glowing between the lips of bearded or unshaved, lowering, and unkempt fellows. But the worst of all was that all these migrating travellers carried with them heaps of belongings, bedclothes, pillows, and quilts, small boxes, sacks, and bags, packets of meat, bread, rolls, apples, grapes, and melons, teapots, glasses, and samovars, and there was no possibility of finding room on our wretched bench for all this stuff. The racks were of course overfilled in a moment, then as much as could find room was crammed under the seats; coats, cloaks, and packages were hung up on the hooks till they were full to the knob, and the rest was piled up in the passages and between the benches in this compartment for six where twelve persons had taken their places. Those who did not sit packed together on the seats or in one another's lap reposed on the top of their goods and chattels, and when everything was "made straight," the compartment was like a well-packed sardine box, a night harbourage for tramps, or at best a clearing-out auction in a rag-market.

This compartment presented a tragi-comic appearance as of a removal or eviction, and it was impossible to get out or to make the slightest movement. And yet the Armenians were never quiet; they were constantly fidgeting and settling themselves afresh, they changed places with one another, tried to get at things in their bundles, and rummaged in their bags for bread, cakes, and fruit. In an hour the floor was covered with peel and refuse, scraps of bread, fruit kernels, and bits of paper. Appetite in one corner spread the infection to another, and soon slabbering mouths and dirty noses were seen in all

directions. After breakfast fresh cigarettes were lighted, and the atmosphere, already stuffy enough, became unendurable. Fortunately the Armenians thought so too, and opened the door on to the platform, where I should have sought fresh air occasionally if it had not been already crowded with men, boxes, and bags of bedclothes. The young mother, my neighbour, kindly offered me grapes, and I was soon good friends with her children and played with them as much as space permitted. Her youngest offspring screamed, and an india-rubber teat was put in its mouth to keep it quiet.

Another hour passes and the passengers doze off quietly. They have been standing all morning waiting for their tickets, they are crowded and uncomfortable, and the regular shaking lulls them to rest. With nose in air and wide-open mouth the stout matron snores in her corner. The young mother's head bobs to and fro over her sleeping child, as though it were ready to fall off; the children cease from their play and the bearded men sink down in their corners, resting against one another or with their heads on one another's knees. The old sick woman sits supporting her head on her hands; she wears a half Kirghiz head-covering, a white bandage round the crown, ears, and chin, whereas the other women wear a circular diadem of velvet, a white gauze veil and a black mantilla over all.

The railway to Nakichevan, which in two years was to be taken over by the state, was at this time a *vremenni* or temporary line, and was worked in the most scandalous style. The carriages were old, miserable boxes, long ago discarded from other branch lines. No daily cleaning was thought of, only occasionally the refuse was removed from the floors when it threatened to accumulate into regular kitchen middens. Moreover, it is shameful that the railway directors allow the public who avail themselves of this means of communication to be so imposed upon. Though only natives travel in this train, yet, having paid four roubles and sixteen kopecks for a second-class ticket, they are entitled to demand a seat. They grumbled loudly at the way they were treated, and could not understand, any more than myself, why a couple of carriages should not

be attached to the train, which indeed, jogged along at a pitifully slow pace. In a word, there was not a trace of order and civility, and I wondered in my own mind what the third class must be like when such was the state of the second. One certainly travels more comfortably and safely in the Turkish carriages in Asia Minor, where one also meets with civility and honesty. Roguery, theft, and violence are rampant on all the frontiers of Asia, where the offscourings of two or more peoples are collected, and the friction that naturally results gives rise to an undesirable state of affairs.

The stations on this new line are still temporary mud houses resting on low pillars to raise them above the damp ground. Garni-chai is the first village we pass, and Kamarlu the first station, an Armenian town surrounded by gardens and fields. The second, near the village Davalu, bears the high-sounding name of Ararat, and after the third station, Sadarak, also an Armenian village, the country becomes more and more desolate. The grand view of the twin peaks of Ararat is a relief to the eye, a magnificent panorama. I have now seen the splendid mountain from all sides. The train bears us away from it, and Little Ararat closes up to the larger mountain owing to the change in our position.

We pass now through steppe country, now through barren wastes; a bush is seldom visible, a tree never except at villages. The air is not quite clear, and the outlines of the southern mountains are seen dimly as through a veil; the northern heights, in full sunshine, are quite insignificant, and show shades of brown, yellow, and purple, barren and monotonous as a desert. Bash-narashen, a Tatar village, has caused the erection of the fourth station; here took place, some weeks ago, a fierce and bloody conflict between Christians and Islamites, Armenians and Tatars. To the right, southwards, the Araxes is quite near to us, recognizable by the belt of vegetation which lines its banks. Ararat is still visible, in smaller outline and fainter tones, but soon the curtain falls and the holy mountain is lost in the haze.

We then bump along through steppe land, carefully

raise ourselves to stretch our legs, and then sink down again into our places. The engine pants and puffs; it burns *mazut*, the excellent fuel that remains after the distillation of raw petroleum; its smell is suffocating, and helps to pollute the air in our rolling house. The Armenians make preparations for their mid-day meal, and bring out bread, hard-boiled eggs, and bottles of milk from their stores, and egg-shells are added to the other sweepings on the floor. The railway creeps along the river, following its windings; here the banks are dreary and barren, a couple of ox-carts move like snails along a weary road, a couple of yellowish-grey camels graze among thistles in the solitude; how dreary and deserted, how bare and naked compared with the Caucasian coast of the Black Sea! A frontier post on the other side of the river is Persian. Here and there the river is divided by a holm or an islet of mud, and the current is very slow. Still more desolate and more like a desert is the land to the east, calling to mind the great flats on the lower Kura.

We rejoice over every station we leave behind. The fifth is called Shah-takhti; here a very large caravan is marching eastwards. The railway traffic does not yet seem to be in full swing, but we know that wherever the tracks extend their twin ribands of iron through the steppes, the death-knell is rung unmercifully of the picturesque and all-pervading caravan life. Trains travel more quickly and trade is extended; but in the East people are never in a hurry, and it is a pity to see camels pushed out and driven from the stage.

Now the sun sinks and darkness spreads over the silent steppe. Low hills stand on the Persian side of the Araxes. After a sound siesta the Armenians wake up again and light fresh cigarettes, the children are tired and fractious, and long to get home to their wretched beds in Nakichevan. At last this long day approaches its end. Yonder on a height are seen the houses of the little town, church towers and trees, the engine sounds its whistle, the train slackens its pace, and at last halts at the station, which is nothing but an uncovered platform. There is no goods warehouse, and the passengers get their belongings by waiting patiently

in a long queue before the luggage van. But as there were no carts to carry baggage I left my boxes behind, and mounted the only carriage left and drove a mile into the town along an uncomfortable dusty road. The last stretch ascended steeply, and as the coachman kindly informed me that the Hotel Europa was the first in the town, we pulled up at its gate. I learned afterwards that the rogue received a certain commission from the proprietor for all the innocent travellers he caught in his drosky and drove to this the most miserable of all the dens on earth.

The landlord declared that all the rooms were engaged, but that, as I was comparatively neatly dressed and had a rather creditable appearance, he would give up to me room No. 1, which was usually granted only to more distinguished travellers. After a much-needed bath I came to the conclusion that it would not be much out of the way to look up the commander of the town, the *uyesdni nachalnik*, or district chief, for otherwise I might not so easily get out safely from the Russian Empire with all my boxes intact. Here thieves lurked in every corner, and quite recently this very district had been the scene of blood-curdling atrocities. And to expose myself to pillage when I had only one day's journey to the Persian town of Julfa seemed needless.

So I made a lad from the hotel show me the way to the house of the commander of the district, the entrance to which was guarded by two soldiers who marched to and fro with rifles on their shoulders.

"No one enters here," called out one of the warriors.

"I must speak with the uyesdni nachalnik."

"He does not receive at this time of day, at night."

"Tell him that I am a traveller and must speak with him."

After several hums and haws the man was induced to go in, and I soon heard a hurried step in the house, and a small gentleman, with the marks of a lieutenant-colonel's rank on his uniform, politely bade me enter, led me to his study, where a lamp burned on a writing-table, and excused himself for a moment; he had some important business to talk over with an officer in another room. Meanwhile, I

examined the dreary room, where the bare walls were adorned only with some common, uninteresting photographs of groups of Russian officers, and I looked round till my eyes were suddenly arrested by a large book which lay open in the middle of the writing-table; it was a Bible, and in Swedish!

When the colonel returned a little later I asked him in Swedish whether he was accustomed to read the old book, and he answered with a Finnish accent that it was his only company, and that he had never needed it so much as now, amidst all the unrest and uncertainty that surrounded him on all sides.

Colonel Enckel, who has spent six years in Nakichevan, is a bachelor, a quiet and very amiable gentleman, and he asked me at once to move over to his house. He sent some troopers to the station to fetch my heavy luggage, and after we had dined together he entertained me till one o'clock in the morning with accounts of the bloody days that had lately convulsed his district. This time is now long past, and probably peace is restored in Nakichevan; and though the events are in themselves of merely ephemeral interest, yet they may serve to throw a faint light on the conditions under which men of different races live together in Caucasia.

In the whole province of Nakichevan, in this year 1905, more than 200 murders were committed. The disturbances commenced in the Tatar village, Ikran, where Armenians fell upon and slew forty Tatars—men, women, and children. Two days later, May 6, the infection spread to Nakichevan; some Armenians shot down a Tatar as he was reciting his evening prayer in the open air, and the Tatars, exasperated at this treacherous deed, killed an Armenian in requital. It was hoped that the so-called Christians and Mohammedans would consider that they were quits; but the blood-feud spread in other directions, and three days later Armenians shot down some Tatars who were on their way to the town from an outlying village. To restore peace, it was said, and to stem the upheaval before it had taken too firm a hold, the Vice-Governor of Erivan betook himself to Nakichevan, and on the morning

of May 11 had an interview with the Tatar notables, begs, khans, and mollahs, and later in the day a similar conference with the leading men of the Armenians. Though both parties promised to keep quiet, the crack of revolver shots was heard the same evening in the bazaars. This was because the Armenians let their so-called *fidais* (hired assassins) drive about the town discharging their revolvers in the air, simply to stir up excitement and disorder, and increase the general uneasiness and anxiety. They were arrested at once, and their supply of revolvers and bombs was confiscated.

At this time 150 troopers of the frontier guard were stationed in Nakichevan, who, however, were not at the moment in the town, but were scattered in small patrols along the frontier; besides these the colonel had under his command the garrison of 150 soldiers. Singularly enough, the Vice-Governor had sent the whole of this force $2\frac{1}{2}$ miles out of the town for shooting practice, and when the agitation assumed on May 12 a threatening aspect, the men who should have maintained order were not at their posts. The Vice-Governor, however, who kept out of danger in the house of the rich Tatar, Ragim Khan, persuaded the Armenians to open their shops and bazaars at seven o'clock. Two hours later single shots were heard in this direction, and afterwards they became more frequent. With two soldiers, who were all he had within reach, Enckel hurried to the bazaar, and arrived in time to witness the horrible butchery and the savage plundering of the Christians by the Tatars. After the Tatars had slain with their kinjals forty-eight Armenians, many of whom had five to ten stabs in their bodies, they pillaged the shops and set fire to a whole row of booths. The Armenian town was set on fire in several places; and only when he had collected a party of volunteers, could Enckel succeed in saving the town from complete destruction, and by his energetic action induce the Tatars, who had only three dead men, to put an end to the bloodshed. Meanwhile a messenger was sent after the garrison, which was busy at its target practice; but when half of the force arrived the massacre was already over.

26. Tatars in Nakichevan.

Now the garrison succeeded in maintaining order till a force of 800 men, which had been telegraphed for, arrived from Erivan on May 14. These troops were still there at the time of my visit. The Armenians were momentarily expecting some new outbreak; but the Tatars had played such thorough havoc in their shops that they were left alone for a time.

On May 13 several similar riots took place in the villages round Nakichevan, and on the 14th the Vice-Governor, who must have lost his head in the general confusion, despatched Enckel's adjutant to maintain order with twenty-two gendarmes and frontier guards. The adjutant returned immediately with the information that he was quite unable to force the hollow ways and thickets occupied by the Tatars, where his men were exposed to their fire; for the Tatars believed that the object of the Russian force was to help the Armenians.

Then Enckel obtained permission to return on the same day at three o'clock with the twenty-two mounted men; and after three collisions with the Tatars, many of whom were killed, and after he had received a further reinforcement of five soldiers, he fought his way through, and rescued several villages lying twenty to twenty-seven miles from the district town. Others, however, were pillaged and sacked in the most frightful manner. Thus many Armenians were massacred in the village Jagri, while the village Ulya-norashén, in the neighbouring department, Sharur, was burned to the ground by Tatars, who poured kerosene over the houses and shops and killed the owners.

When I visited this country it was still in a ferment, and it was not safe to go anywhere. The Armenians were incensed against the Tatars, and had, three weeks before, killed sixty men, women, and children in the Tatar village Gors, which was also plundered of all its cattle. This deed reacted on Nakichevan and other parts, where the Tatars thirsted for vengeance. An occasion presented itself three days after the attack on Gors, when Tatars fell upon an Armenian provision train, which travelled with an escort of six Russian soldiers armed with the new rifle. The Tatars summoned the soldiers to surrender their rifles,

promising that they should go free if they complied, and, to their shame, they agreed to the terms of capitulation. But the five Armenians were taken and done to death in the most horrible manner, after their noses, ears, and tongues had been cut off, and their eyes plucked out. This occurrence was regarded as a fearful scandal, and the colonel of the 800 men from Erivan knew that he would be tried by court-martial, for reports on missing rifles must be delivered direct to the Tsar. An attempt was made to save him, and Enckel had already recovered four of the lost rifles, and trusted that by threatening and intimidating the Tatar chiefs he would obtain the two still missing.

At the same time the Tatars attacked the Armenian village Jarni-ja and drove off its cattle into the mountains. In this enterprise they set to work in the following ingenious manner. They crept up to the herds in the darkness and discharged some shots, which frightened the animals and sent them off in wild flight in the desired direction. Riders were posted to see that the herds drew together from all sides into a close mob, and while the hunters hung on their heels like bloodhounds to prevent the flying animals from slackening their pace, they chased the whole collection over hill and mountain, and before the robbed owners could collect their thoughts the robbers were far away with their booty. However, Enckel sent an officer with fifteen Cossacks and three gendarmes to follow up the cattle raiders from Jarni-ja. In the evening he received a report from the officer that he had reached the village Nagajia in the uplands, but had been fired at from a height above the village. He had been exposed to the fire of the Tatars for several hours, and had been at last forced to retire without effecting anything. But he had seen a large herd moving up to the heights, and now asked Enckel to send a reinforcement.

The latter then set off in the middle of the night with sixty foot soldiers, and made a forced march over the fourteen miles to reach the village before daybreak. The Tatars received him with fire from an eminence which was at once surrounded. After a Russian had been wounded and several Tatars had fallen, the rest fled farther up into

27. Tatar Girl in Nakichevan.

the mountains, and the cattle were caught and restored to their owners. As a punishment the village was placed under martial law, sixty Russian troopers with their horses being billeted on the village for two weeks, living at its expense, a very serious burden when a village is poor. Such a punishment is detestable to the Tatars, especially as their women are exposed to the eyes and importunity of unbelievers.

At this time comparative quiet prevailed at Nakichevan, but in other parts around the people continued to rob, pillage, and steal cattle. Enckel, who played such an effective and spirited part in suppressing the disturbances, was not safe, but received repeatedly threatening letters or warnings not to show himself abroad in the streets; but he faced the position with imperturbable serenity, and strolled alone through the bazaars, where his coolheadedness inspired the greatest respect.

In 1903, as has been already mentioned, the Armenians commenced their political murders of higher Russian officials. Their fury did not spare innocent victims. Two of Enckel's acquaintances, a mathematical teacher and a merchant, had been assassinated because they were suspected of spying and sending reports to the authorities.

In consequence of these murders the Russians were naturally embittered against the Armenians, and the Tatars, who noticed their animosity, thought that they would be accomplishing an excellent and meritorious action in exterminating the Armenians, whom, moreover, they themselves heartily hated on religious grounds. Accordingly, at the beginning of February a bloody riot broke out in Baku; and as the Russian authorities, wearied with the craftiness of the Armenians, did not immediately interfere, or at any rate with little vigour, the Tatars were confirmed in their belief that their violence was connived at, and at the end of the month riots broke out in Erivan. In June 1905 Prince Louis Napoleon was governor of this town, but resigned after five months, for it was his opinion that only extreme measures could restore order; and, not wishing to spoil his prospects in another country,

he would not dip his hands in blood, but preferred to take his departure.

At the same time, June 1905, General Ali Khanoff, the hero of Kushk, who played such a prominent part in Russia's war in Central Asia, was sent from Erivan to Nakichevan to pacify his fellow-countrymen, the Tatars. During the month he remained on the spot, as a visitor in Ragim Khan's house, he made an inquiry into all that had taken place. Enckel had in several villages resorted to flagellation as a punishment for the Tatars, and let his Cossacks thrash the rioters with their whips, a treatment that proved infallible and acted like oil on the waves. But Ali Khanoff, himself a Tatar, was indignant that an unbeliever should dare to lash the followers of the Prophet, and sent a telegram a yard long to the Governor-General in Tiflis, an impeachment of Enckel. The latter, warned by the telegraph clerk, sent a still longer telegram to Prince Napoleon, who pleaded his cause before the Governor-General. Enckel was upheld and Ali Khanoff was recalled from his abortive mission.

Latterly the Armenians had quite turned round, and now took part with magnanimous Russia, so they said. This change of front was due to political movements, into which I gained some insight in Batum, and I learned that the Georgians threatened to revolt against Russia and aimed at acquiring dominion over Caucasia. The Armenians feared that the Georgians and Tatars might attain to power, which for them, as they are a minority, would mean that they would be more tyrannized over than under Russian supremacy. To ward off such a state of affairs they thought it better to range themselves on the side of Russia. To Russia it is a great source of strength that the native inhabitants live like cat and dog, and are occupied with their mutual rivalry—thereby alone is the ruling race able to keep them in check and in impotence. It is the same in India, where the adherents of the various religions and the maharajas hate one another much more implacably than they do the English. If the Georgians, Tatars, Armenians, and all the other peoples had clung together we should have witnessed much more serious

28. Priests in Nakichevan.

29. Tatar Girls in Nakichevan.

events in Caucasia than actually occurred, and which, owing to their local, personal, and religious character, paralysed all more dangerous and far-reaching movements. Whenever a dangerous revolt is hatched or breaks out in Caucasia, the authorities have only to incite the Mohammedans against the Christians, to lay hands on both parties after they have mutually exhausted their strength. The justice and humanity of such a policy may well seem doubtful, but it is certain that if the Caucasian tribes were left to themselves the state of affairs would be ten times worse. And in India the condition would be the same if England withdrew her hand.

CHAPTER XI

THE ROAD TO JULFA AND AZERBEIJAN

DURING the day's rest I allowed myself in Nakichevan Colonel Enckel and I took several walks and drives in and around the town. He had contended with great severity and energy against licence in his district and might expect a bullet at any time; but he still went about the streets perfectly at his ease, and I noticed the reverence and respect that was shown to him by all, Armenians as well as Tatars; when we passed a group of seated men they always rose and saluted.

We visited a silk factory, where I paused to photograph two groups of young Armenian workwomen. We looked into two Tatar houses, where I had also an opportunity of immortalizing on some plates a number of youthful beauties with raven black eyes and such comely, charming features that it was hard to believe that they would some time grow up to become mothers of black-bearded men, who would roam about with their kinjals shedding Christian blood. We cast a glance at the ten-sided tower, formerly covered with ornamental tiles, which was erected in the year 122 of the Hejira by Meimune Khatun, in memory of her father. We paid a visit to the wealthy and distinguished Tatar prince, Ragim Khan, and admired the view from his elegant house. And lastly we made a pilgrimage to Nakichevan, or Nak-chevan, *par excellence*, that is, the grave of Noah, the crypt beneath which the venerable old Noah lies and ponders over all the evil and deeds of hatred that his descendants have wrought in the world during the ages since he rested in the Ark on the summit

30. Armenian Workwomen in Nakichevan.

of Ararat. The tomb consists of an octagonal platform with a crypt beneath, in the midst of which a massive pillar supports the platform roof of tiles. Two sloping passages give admittance to the crypt, which has whitewashed walls. According to the popular belief, a man will have a fortunate journey or be successful in an enterprise if a stone adheres when he presses it with his thumb against the plaster. Of course I tried my test stone, but I gave a good push in. Round about the strange tomb, where a fireplace in the crypt seems to indicate that Armenian pilgrims take their meals in the holy apartment, stand several old Armenian graves. The ground around the place where the pious believe that the cheery old man slumbers is silent, bare, and dreary, but grand mountains rise in the distance, and far off towers the majestic Ararat.

Nakichevan is a quite unimportant town of 12,000 inhabitants, one-third Armenians and two-thirds Tatars. The country produces cotton, raw silk, wheat, rice, and grapes, and the trade, as well as the land, is in the hands of Armenians. These play in general the same part in Caucasia as the Jews in South Russia. They are detested because they monopolize profits and, as sharp and cunning usurers, keep the rest of the population in material thraldom. The fertile lands have passed into their hands, and while they themselves have only to shuffle their cards well, other people work like slaves to increase their gains. But they are shrewd and gifted like the Jews, and are persecuted as they are. They have despoiled their original fatherland, and in the struggle for existence have done their best, under exceedingly unfavourable circumstances, to keep their heads above water.

On the morning of November 30 I breakfasted very quietly with my quondam countryman, the good colonel, who undertook to make all necessary arrangements for the drive to the Russian town of Julfa. Two huge *kalyaskas*, properly calêches, drove up to the gate, and in one was packed and secured all my heavy luggage, while the smaller was stowed in my carriage. Heavy, clumsy contrivances were these vehicles, ragged, bent, and strained after many a dusty journey on unmade roads; and on their wheels and

sides still remained layers and cakes of hardened clay and road mire, which gave them an old, hoary, far-travelled appearance. I thanked my host, left him to his solitude with his Bible and the threats of the natives,[1] mounted my *kalyaska*, and drove thundering through the bazaar, accompanied by two mounted gendarmes with rifles on their shoulders; now trade was in full swing, the burned shops were built up again, and everything looked so peaceful and pleasant that it was hard to believe that the narrow streets had quite recently been the scene of bloody conflicts.

We are out again on the country road, and leave on the right the spot where old Noah rests in peace, while hundreds and thousands of years pass without a trace over his deserted grave. Ilan-dagh is the name of an isolated mound with steep flanks, and to the north-east of it runs a snowclad ridge. The river Lehram-su is divided into two arms, only one of which has a bridge, and beyond it the road becomes exceedingly dusty, the loose dry yellow powder rising in dense clouds from the horses and wheels, but we drive so fast that we escape the worst. The road is bad and uneven, its holes are filled with the loosest of rubbish, and the wheels sink into these traps as into water, the carriage rolls and jerks, the horses run at a gallop, and sometimes the fool of a driver (*yemshchik*) seems to be practising all kinds of balancing feats on his box, as we swing over the holes. I am thrown to right and left, jerked up into the air to come down again with a thud—it is quite a game of ball, invalid gymnastics, that is, gymnastics which make one sick. Fortunately the carriage is sound, well poised on its springs, and can bear a deal, at any rate more than the traveller.

The road may be pleasant after heavy rain; two shallow trenches are made along the sides in case of such downpours. Thin copses grow here and there—everything is yellow, grey, and dusty. Very soon a thick layer of dust

[1] I afterwards received a letter from Enckel, from Kutais, whither he had retired. He informed me that some time after my departure he had been the object of a murderous attack on the part of the revolutionary terrorists. He had been severely wounded in the head and breast, and had been shot through the left lung, "but now, thank God, I am well again," he added.

covers everything in the carriage. A trunk is secured on the box, with my name painted in black letters on its cover of sailcloth; the name becomes more and more indistinct, and at last disappears altogether. Sometimes all the surroundings are enveloped in an impenetrable cloud of dust, and one sits gasping for breath.

Two telegraph lines run along the road. One, with two wires supported on posts of cast iron, is the Indo-European, which crosses Persia and Caucasia; the other, one wire on wooden posts, is Russian, but it conveys no messages now, for yesterday a strike broke out in the post and telegraph department. We meet a *chetvorka*, or four-in-hand, with wild Tatars, and a *troika* with people of the same race. The traffic is brisk: waggons driven by Russians, now carrying passengers, now goods—mostly *kishmish* or small sweet raisins from Persia,—*telegas* and *tarantasses*, small parties of men on horseback, but none on foot, for they would not be safe at this time. In the Tatar village Cheshme-bazar, where some Armenians also dwell, there is a guardhouse where my *strashniki* (gendarmes) are changed.

A little farther on we meet a *telega* drawn by two horses, and containing two Russian *chinovniks*. They pull up and make signs to us to follow their example, and then ask us to take their horses in exchange for two of ours, which they say will be to the advantage of both parties. But when I have thrown a glance at their tired jades, I understand the dodge, call out "Haida!" to my brown and shaggy-bearded Tatar *yemshchik*, and leave the Russians staring blankly in the dust. The country becomes more diversified and hilly, to the left are low mountains, and the dust is now of a red colour. My driver is a great curiosity; he sits rolling cigarettes with the greatest unconcern while the four horses, harnessed abreast, stretch out their legs along the route; when he occasionally puts his hand to the splashboard where the reins lie, I know very well that a tremendous jolt is coming.

In flying course we dash through a brook, its pebbly bed shut in between hills. The sky is dull, one shower falls after another, the Tatar village Allenjai-chai is behind

us, and on we go at full speed to Jamadinski Post, where gendarmes, *yemshchiks*, and horses, the whole pack, are exchanged for a new equipment. Here we are half-way between Nakichevan and Julfa, and a serai with grey walls is erected for the use of caravans.

My two carriages rumble on with new strength through a valley breaking through red sandstone hills, while the rain falls fine and dense, and the light becomes more and more faint and diffused. The road is worse than in Asiatic Turkey; even between Erzerum and Bayazid it was better than here, and yet the men drive like lunatics. The rain falls still more thickly, and there is no dust from the road, but it adheres to my luggage in a thick crust, which can only be worn off by friction during long caravan journeys. The mountains on the Persian side are wrapped in a veil of mist, the rain beats on the hood, and the mud, becoming ever softer, spurts and splashes from the horses' hoofs and bespatters the wheels. Down below, some white houses are seen on both sides of the Aras, our old friend the Araxes, and we approach it at a good speed, and before I am quite shaken to pieces the team comes to a halt in Julfa.

Where a street, road, and market meet is situated the dwelling of the customs inspector, but this gentleman is not at home, having gone to a place in the neighbourhood, along the road which leads to Ordubat, where three Armenians have been murdered by Tatars an hour ago. A Georgian customs officer calmly shrugs his shoulders and says that here they do not pay much heed to such trifles, they are accustomed to them.

With the impression produced by this threefold murder I left Russia a second time, and entered a country where life at any rate was safe. Two thousand four hundred miles in carriages and on camels' backs is a stiff journey, and India seemed to me terribly far away. Winter had set in, and it would come to an end, and spring and summer would follow before I reached my distant goal. Many times would the clappers strike against the camels' bells, many evenings would my tent be raised at the edge of the desert, and many mornings would the sun blaze

above desolate, ruddy mountains before the long way was traversed. But now at least I had Asia Minor and Caucasia behind me, and here, at Julfa, I commenced the interminably long journey through the midst of ancient Iran, the illustrious kingdom of classic times, where at the present day not the slightest gleam lingers of the proud age of the Achæmenides.

The deputy customs officer and some other odd men took me and my luggage to the customs pavilion. My passport was examined, but no box had to be opened, for I was only on a through journey in the outermost skirts of Caucasia.

"Have you any firearms with you?" asked the man.

"Yes, a Swedish officer's revolver, with ammunition."

"I am sorry that my instructions oblige me to confiscate it; it is strictly forbidden to carry firearms out of Russia."

"As you let my luggage pass intact through Russian territory, the revolver can go with it; you can understand that I need it for my journey to Teheran."

"It cannot be helped. The only advice I can give you is to telegraph to the Finance Minister, for no one else can grant permission in this case. The telegraph is not, indeed, working now, but if you will write out the telegram, and pay for it, I will send it as soon as the line is open. Then the revolver shall be sent after you to Teheran."

"But it is on the journey I want it; if I do not take it with me, I can do without it altogether."

While we were discussing this most important matter the customs inspector entered just in time to tell me that I might take my revolver with me, and that the punt was waiting to take me over the Araxes. Now the rain streamed down, everything was wet and spongy, dense darkness lay all around, but the path, where there was danger of slipping into the mud, was lighted by two men with lanterns, and so we splashed down to the shore, and the luggage was carried by a party of Tatar *hammals*. After everything had been put on board, the punt was hauled with a rope across the river to a small island, which

lies between Russia and Persia, and belongs to no one. There we were met by Persian porters and an interpreter, who spoke French, and the baggage was transferred to something which was neither boat nor punt—as far as I could make out in the darkness,—which carried us over to the point of a slippery clay bank on the Persian shore. A *hammal* slipped and dropped one of my boxes into the river, so that it had to be opened afterwards and all the contents dried at the fire.

The Persian Julfa is as miserable as the Russian, but it was an important town when Shah Abbas conquered Armenia in 1603. With or against their will, he transferred some capable Armenian artisans with their families to Ispahan, where they built a suburb on some unenclosed ground, which is to this day inhabited by their descendants, and also bears the name of Julfa. Though it was in 1886 that I visited New Julfa, I still remember, as though it were yesterday, its streets and mean houses, where Armenians sat making door frames.

At the time of my visit to the old Julfa, on the bank of the Araxes, a young Dutchman, Dhoedt, was in charge of the customs station, and he had the kindness to meet me on the bank with an umbrella, which was quite useless, as I could not be wetter than I was. We were escorted through the slush to Herr Dhoedt's house, and I need hardly say that there was no talk of a customs examination.

The whole Persian customs department is managed by a number of customs experts imported from Belgium with Herr Naus at their head, who, singularly enough, has a seat in the Persian ministry. I had met him at dinner at the house of Mirza Riza Khan in Constantinople, and he had kindly furnished me with all the permits and papers I might require to secure exemption from customs dues.

When I had been installed in a room quite European Herr Dhoedt sent for the contractor who holds the monopoly for all transport in Azerbeijan, and it was agreed that he should send me on to Tabriz with a carriage and a waggon at the price of sixty roubles for the two days. He pays £4800 a year to the State for the monopoly, and

controls all the carriage roads to Khoi and Bayazid, Tabriz, Urmia, Teheran, etc.

Herr Dhoedt gave me many interesting details regarding trade in North Azerbeijan, and I here cite a few figures to give some general idea of its volume and of the goods which are articles of exchange between the two countries. They relate only to the country between Julfa and Tabriz and do not include the road through Khoi; for Tabriz the corresponding figures are twenty times as large. From March 21 to November 30, 1905, the imports from Russia to Persia *via* Julfa were as follows:—

Flour	16,000 batman[1]
Loaf sugar	523,000 „
Soft sugar	22,100 „
Tea	5,200 „
Petroleum	18,100 „
Iron and other metals	9,533 „
Millstones	49,912 „
Cotton cloths	3,360 „
Hides	12,700 „
Agricultural implements and hardware to the value of	24,500 kran
Vehicles to the value of	38,000 „

On the Persian roads millstones are transported by putting a wooden pole through their holes and drawing them along like wheels with four buffaloes.

During the same period 109,225 batman of dried fruits, chiefly *kishmish*, and 33,500 batman of cotton to the value of 280,000 kran, were exported from Persia to Russia. Besides these goods various smaller parcels pass in both directions.

Russia had obtained from the Persian Government a concession for the construction of a road from Julfa to Tabriz, and had handed over the concession to a syndicate, which commenced work in March and expected to have finished by the end of the year. Three Russian engineers were posted in the Persian Julfa to superintend the work. They cannot have been distinguished by any particular technical ability, for where the road runs through a narrow

[1] 1 batman = 6¾ lbs.

valley it was constructed in the ordinary way, and when the valley was filled by a great flood after continuous rain five miles of road were washed away. It was repaired and made firm with cement. The intention was that this road, available for motors, should form a continuation of the railway from Tiflis to Julfa, which is now finished as far as Nakichevan. A bridge eighty-eight yards long was to be built over the Araxes a mile and a third below the present Julfa, a double town which, therefore, will in the near future change its position, and probably at some time become of great importance, not least from a strategic point of view. Twenty motors had already been ordered from Russia, both for passengers and baggage, and when all is ready it will be possible to travel from Julfa to Tabriz in five hours instead of two days as at present.

It was quite evident that in this undertaking Russia had plans for a railway in prospect; for all the blastings, cuttings, embankments, and gradients were planned for a railway line, and little more was needed than to lay the rails upon the track. This railway will give the death-blow to the old caravan route from Trebizond, and, thanks to the prohibitive tariff at Batum, Russia will then render impossible any attempt at competition, and will control all the North Persian trade.

The Persian Julfa is an insignificant and bare town of a few houses, among which the Perso-Belgian customs-house, with its two storeys, balcony, and pillars, rises like a palace among wretched cabins. Still it has a *hakim* or governor, a post office, and an English telegraph office managed by a German, and lastly a motor garage. The waggon with my luggage was betimes on the way, but it was past eight o'clock when I commenced my first drive on Persian soil in a small light carriage, drawn by four horses and driven by a Tatar coachman. At first the country is level as a floor of parquetry, for the soil consists of close alluvial mud from the floods of the Araxes, and is so hard that the wheels make no impression on it. Persian carriage roads are distinguishable only by ruts, but the Russian road we soon cross has an imposing appearance, with its deep channels at the sides.

Mist lies dense and heavy over the flat, dreary land, hiding the view and producing the illusion of a vast plain, as on the shore of the Lake of Aral. But beyond the grey town walls of Shujes and its *guristan*, or graveyard, with singular monuments and rings of stone round its grave mounds, the white wisps of damp mist begin to move and roll like smoke down the Araxes valley. It grows lighter, the nearest mountains come into view, and here and there the blue sky peeps out through vertical shafts. The moisture from the heavy rain of yesterday is now rising up, and the whole country seems to smoke and steam. When the sun pierces its veil it will feel burning hot.

A party of Armenians come riding along conveying their goods on horses, and sometimes we meet small local caravans. Farther on, where the narrow pebbly road leads us to the mouth of the Deredis valley, dense mist is again seen in front of us, and we soon come up to it and are surrounded by chilly air. We cross again the Russian road, here strengthened by a stone breastwork, macadamized, and with small arches of stone to give outlet to rivulets from even the smallest ravines. The Persian road becomes still worse at the bottom of the erosion furrow which, encumbered with detritus and boulders, leads us up between low hills. At the foot of the right flank of the valley rises a terrace of pebbles perhaps fifty feet high. The higher we rise the narrower the valley becomes, the more bestrewn with fallen rubbish, and we cross the little brook time after time among the boulders. Here the new road, after the first experiences, has been solidly built up two or three yards above the valley bottom and with a rise as regular as a railway. The station-house of Deredis, also a Russian building, is so firmly and solidly constructed that one looks forward to seeing, some day, a railway waiting-room accommodated in it. At one point where the road crosses the brook a bridge of two arches is erected and strengthened by buttresses to be able to withstand the pressure of the water. At certain sections, where the new road encroaches on the ground of the old, it is permissible to make use of the former, but not elsewhere.

We drive along at a round pace; the coachman smacks his whip, clicks, and shouts; and when some Armenians riding on asses do not manage to draw off to one side he drives calmly into the middle of them, with the consequence that one of them, with his four-legged companion, becomes entangled in a pair of our horses and tumbles head over heels between their hoofs. Fortunately, the coachman pulls up his horses before he has driven over the man, who stands with his comrades on the road scolding and threatening, as we hastily make off from the so shamefully treated party.

Now the valley expands, and over the gently-rounded mounds of yellow loam we come up to more plateau-like heights, where we repeatedly drive across the new road, while the mist again closes in and hides the view. Up here stands the village Ariandebi, of stone and mud houses thatched with straw, as in the Kurdish villages of the Erzerum vilayet, and with a caravanserai, a grey quadrangular wall with a gateway, and benches built against the walls in the entrance, as well as a *balakhaneh* above, properly "over-house," balcony, with closed window openings. Ariandebi is a *mensil*, station or posting-house, and here both drivers and horses are changed. Immediately after me two phaetons arrived packed with Armenians, who tried to induce the postmaster to let them have the best horses in the stables, but they did not succeed.

After half an hour's rest we continued our journey in bright sunshine and mild summer weather, and I was glad to be in this fortunate Iran, though in this Tatar province, which also swarms with Armenians and Kurds. Of the six coachmen and drivers who served me this day only one understood Persian.

In the open, slightly undulating country, surrounded on all sides by low hills, those in the south partially hidden by heavy clouds, is Kara-bulak, a village, and a Shah Abbasi, a quadrangular caravanserai wall of burned bricks on a base of large blocks of red sandstone. In the middle of the façade stands a *pishtak* or pointed portal, once of great beauty, adorned in front with blue tiles, now partially fallen off, and surrounded by four round solid towers.

The *kavekhaneh*, or refreshment stall, of the village Alachi stands close to the road, where its tables and benches are sheltered by willows watered by small irrigation channels. Opposite stands Kara-tepe, at a considerable distance from the road, which winds through more irregular country between green, grey, red, and purple mountains, desolate, rounded, and bare. The Tatar on the box drives headlong down the hills and takes not the slightest notice of violent jolts at the bottom of the ravines. With an expression of self-satisfaction and importance my young driver sits and sings—so sweetly that he has tears in his own eyes. Tsirtsir is a lonely village in this desert country, where cultivated land and wood are great rarities. A flock of sheep is seen only a few times among the hills.

We cross a ravine by a bridge of four arches, and then the road runs broad and good beside the telegraph poles; to the south-west rises a snowy crest, on the northern shore of the Urmia lake, and in front of us Marand shows itself more and more distinctly. Driving up a street, which at times also serves as a relief channel for the river, we come to a halt before the gate of a more pretentious house; this is the end of our day's journey.

CHAPTER XII

MARAND—TABRIZ—AN IMPERIAL PRINCE

THE house, where I was kindly shown to a room with mats, table, chairs, lamp, and a balcony, belonged to the *hakim*, or governor, and was reserved partly for his private parties, partly for more distinguished travellers who passed the night at Marand on their way to or from Tabriz. The master himself was out, but was represented by his interpreter, a Nestorian Christian from Urmia, who spoke Russian. At his orders I was immediately regaled with dinner—a hen boiled whole, eggs, bread, tea, and fruit; and later in the evening the governor himself, Sujai-i-Nizam, appeared—a tall big Tatar, with powerful energetic features and a friendly benevolent smile.

I am forthwith initiated into his habits. In the daytime he transacts his business in the district; but every evening when the sun sinks he opens his house to guests, and the proceedings are lively. This evening the governors of Maku and Arekan, together with three Persian gentlemen living in Marand, are to help Sujai-i-Nizam to make short work of the well-filled dishes, empty bottles of spirits, and celebrate another night in Ramazan with trumpet and kettledrum. I accept with pleasure an invitation to the feast, and when I enter the matted saloon in stockinged feet, the gentlemen rise politely and give me a seat on a cushion. From an adjoining room are heard the plaintive tones of a cithern (*seh-tar*, three strings), and the owner of the fingers which draw forth its sound enters the room and takes up his position opposite us. Beside him sits a singer, who with his right hand beats a loud drum in the

form of two cylinders connected by a handle, and thus the Persian songs are accompanied by rattling rolls of the drum and vibrating strings. It is quite twenty years since I first listened to this music, discordant to our ears, but still fascinating and dream-inspiring, which, like vine branches in their trellis, was interwoven in a net of memories from bygone years. *On revient toujours !*

After a while they passed on to the second act; they played cards, and krans and tumans were soon heaped up in small piles of notes and silver on the mats beside the players. Now and again a small silver coin was thrown to the musicians; it is a winner who will show his generosity, and not to be behindhand I follow the example. Snacks are served, a real *zakuska* which is in fashion owing to the proximity to Russia; there are garlic with finely chopped eggs, thinly sliced fowl, bread, *sherab* or a kind of sweet wine, and first and last Russian vodka. They drink like fishes, these lazy sons of Iran, and in vain I address a pious wish to Allah that their shadows may never grow less, when whole and half measures, pints and quarts, in regular sequence and in crescendo contribute to make these followers of pleasure more and more hilarious and carry them still farther from the sure ground where man is master of himself.

Sujai-i-Nizam is a powerful and respected man. What did it matter to him that the coin melted away at night! He is rich, and owns several villages, which he can squeeze when he wants money. And he maintains two hundred riders with horses and equipment, which are at the disposal of the Shah in case of war. It is considered an honour to be invited to his night festivities, and to him his whole life is a continuous Ramazan night—that was evident; he denies himself nothing, and lavishly shares his abundance with his friends.

Sujai-i-Nizam rises pompously and self-consciously and invites us with the air of a despot to go out into the large colonnade, where we arrange ourselves in a circle on rugs round the pewter dishes, from which, when the covers are lifted, a warm aroma from the choicest productions of the Persian cuisine titillates our olfactory organs and our

appetites. There stands a white *pillau*, a rice pudding *à la chinoise*; while the next dish is loaded with chicken mince surrounded by a wall of rice; a third contains a pile of *kebab* or balls of finely chopped mutton, and a fourth small cubes of *shislik*, which have scarcely ceased to sputter over the embers. A separate dish is placed before me; the other gentlemen eat together with their fingers. But I am a *kafir* in their eyes, and Mohammedans do not eat from the same dish as a heathen. They do not say so, but put it that they are not worthy to touch with their fingers the same *pillau* as so distinguished a guest.

All the dishes are brought in at the same time, and one can take what one likes best. We sit on our heels with our knees on the carpets, leaning forward and resting the left elbow on the knee, while the disengaged right hand is thrust into the pile. Sitting continuously without growing tired, and without the legs becoming numbed, the guests occasionally sit upright for a time, when a servant brings out a silver-mounted *kalian* or water-pipe, and a glowing ember is laid in the iron bowl on the damp tobacco. And then they eat again and take another puff, and enjoy the good things of life with a deliberate refinement of luxury. Here are bowls of sour milk and small plates of *penir* or cheese; there is *sherab* which is conveyed to the mouth in lancet-shaped wooden spoons, and here stand whole heaps of soft thin bread (*nan*); in a word, the dinner is only too bountiful, and when the host and his brothers in the faith return to their cards, I take my leave to rest for the next day. Sujai-i-Nizam I never saw again, for he kept up his revels till day, and as long as I lay awake I heard through the walls, thin as paper, the bubbling sound of *kalians*, the chink of silver stivers, and the accompaniment of the cithern and drum to the melancholy notes of the singer.

All was silent and peaceful in the house of feasting when I drove on next morning south-eastwards, between the villages Mollah Isuf and Kulli, surrounded by willows and fruit trees, still higher towards the crest of the small range that rises between Marand and Tabriz. We follow a broad valley among low hills now of solid rock, now of

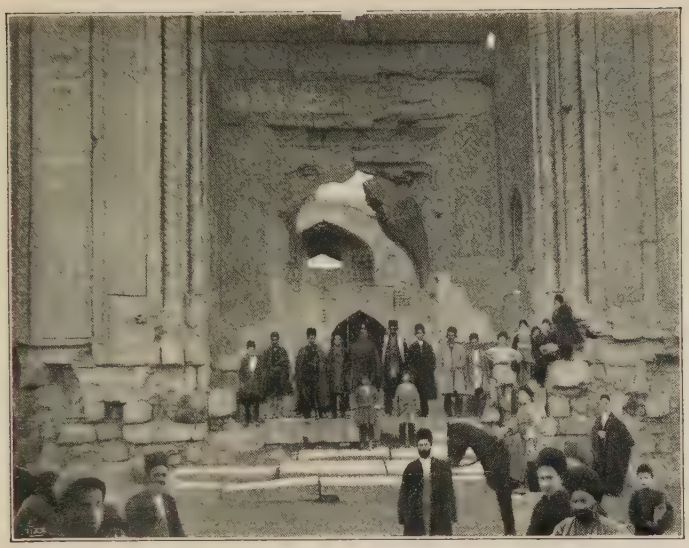
more rounded forms, and it is the new Russian road that runs up to the flat-arched pass, at the summit of which the station-house of Yam is built. Near it stands the village of the same name with its irrigation canals winding among poplars and willows. A broad open valley, skirted on the left hand by a rough reddish ridge, leads us to another of the solidly built caravanserais which were erected by the great Shah Abbas to develop and guard the trade-route to Asia Minor and Caucasia, and which, therefore, still bear his name, Shah Abbasi. This also is built of burnt bricks, and has a cupola over the portal; but the inn is half ruined, and the exigencies of modern times and the changes in the direction of trade-routes have long since silenced the echo of caravan bells in its deserted and time-fissured walls.

We follow a brook that descends gently to Seivan, and a bridge of six arches spans its river. We go farther along its valley; now it is broad, now it contracts again. Every turn of the wheel takes me a little farther into the heart of Asia, and the revolutions follow one another more rapidly now that the road slopes down. English telegraph lines, Russian roads, Belgian customs officers—Europe stretches its tentacles and its rapacious forceps into the old worn-out, decaying Persia. We often come across the new road, and in many places the work of construction is proceeding; small white tents are signs of the presence of overseers who will not let spades and pick-axes rest. A stone bridge in four spans takes us over to the left bank. The road is hard, even, and dry, and in some places better than the new, where the stones for macadamizing the track still encumber the surface. At convenient recesses young Tatars sit breaking stones and piling them up into heaps beside the road.

Beyond the town Sufian, where we change horses and drivers, we emerge on to an exceedingly extensive plain; to the south-west, in particular, nothing intervenes between a far distant horizon, and the eye roams over the flat shore of the great Urmia lake, but the sheet of water is not visible, for the shore is twenty-five miles off. Bedel-karesi is a small rest-house on a purling brook, where we halt a moment to buy grapes. To the south in the endless flat and dreary

land we can just make out Tabriz as a dark shade on the yellowish-brown expanse. The mountains on the left break up into partly isolated groups and heights. The more distant, higher mountains are enveloped in clouds. Now the great road lies far away to the right, small protuberances in the ground hide the town, here and there terraced rims and dikes are traces of fields which have not been cultivated for a long time. At Sinek an old arched bridge spans a brook which, like all the other water in the country, flows south-westwards to the Urmia lake.

The desolation here, near the focus of Azerbeijan and the most populous town in Persia, is astonishing, no traffic to speak of, only a few travellers. The plain, the endless plain, stretches in every direction, seemingly impossible to cross, the horses are almost running away, but we have still more than seven miles to go. Over the Aji-chai, the "bitter river," is a long arched bridge, adorned with ornamental turrets. We dash past a customs station with the Persian arms over the door; our horses' bells jingle clearly and pleasantly in a long street between grey mud walls, gardens stretch along both sides, we penetrate into the town, the traffic increases from corner to corner, and trains of small obstinate asses sometimes block our way; they seem as numerous in Tabriz as human beings. Now we pass through a bazaar, and a street half blocked by millstones presents itself. On the other side of a high-arched bridge we enter a confusion of uniform grey mud houses, where there is brisk movement at sunset, and my coachman drives so fast that I am seriously disturbed on account of the small children at play who thoughtlessly jump in our way. The women of Tabriz are out of doors, wearing their inconspicuous dark-blue sack-like costumes, with white yashmaks in front. Sometimes they lift their veils to see better, but their features are not visible. It is dusk when we drive under the vault of a bazaar arcade, where the trade is brisk, and it is wonderful that we get through without the wheels passing over the feet of idle loiterers. We are out again in a large street; to the right shines the façade of a blue and handsome mosque, and after a while we draw up at the door of the house inhabited by the chief of the customs in



31. At the Entrance to the Gök-meshid in Tabriz.

32. A Caravan of Horses and Mules.

Tabriz, M. Mornard, a Belgian, who hospitably invites me to remain as his guest for a couple of days. Before many minutes had passed my Swedish letters had been brought from the post office, and I had reading to last me till three o'clock in the morning.

Tabriz stands at a height of 4430 feet above sea-level, at the northern foot of the volcanic mountain Sehend-kuh, which lifts its crown 11,798 feet into the air, and is one of a trio of mighty volcanoes, the others being Ararat and Savelan, with its 15,787 feet, all three from immemorial times witnesses of the bloody strifes and political revolutions which took place in Azerbeijan, the most northerly province of Persia. In ancient times Azerbeijan was the part of Media which after Alexander's campaign was called Atropatene, and which in the course of ages, like every square inch of hither Asia, passed from one ruling house to another; which formed a part of great Armenia, and was obedient to the sceptre of the Sassanids; which in the seventh century was conquered by the Arabs, and in 1256 was incorporated into the Mongol dominion in Iran by Hulagu Khan, to form, about the year 1400, part of the powerful Timur's kingdom. But ever since Azerbeijan has become a province of the Persia of to-day, its position between Russian and Turkish territory has been very precarious, and the activity which the Russians have at the present day exhibited in this part of Persia enables us to foresee the fate which awaits Azerbeijan in no very distant future.

The geographical position of the province has been fateful in its political history; inserted like a wedge between different states and races, it has been a bone of contention between them. But also, thanks to its position, Azerbeijan has been in commercial affairs an important link between the East and West, and innumerable caravans have in the course of ages carried wares and produce backwards and forwards on the long roads between Europe and Iran. It is only necessary to make a flying visit to the large vaulted bazaars which cross the central parts of Tabriz like catacombs, and where even now there is a brisk exchange of goods, to gain an idea of the former importance of Tabriz as a commercial town before it was overshadowed by the

Trans-Caucasian railways, which drew the trade in other directions and inaugurated a new period of development for Resht on the south coast of the Caspian Sea.

It is not long ago that Tabriz contained half a million of inhabitants. It was a serious blow to the town when it was almost razed to the ground in 1721 by an earthquake which cost 20,000 human lives. The town then stood nearer to the shore of Lake Urmia, and it was rebuilt on its present site, but it never recovered from the misfortune. It had, indeed, shortly before the opening of the Suez Canal, 350,000 inhabitants; but it suffered immense loss through the new sea route, which drew to itself the trade of all the southern half of Persia. For previously it was through Tabriz that all Persian commerce sought an outlet, and from this centre trade-routes radiated to Teheran and Meshed, Ispahan, and southern Persia. Now it is really only the market for the province, and its domain extends little beyond Urmia and Maraga, and in some small degree to Teheran.

The English Consul, Mr. Stevens, who has lived in Tabriz since the year 1875, informed me that thirty years ago, in his capacity as agent for five English commercial houses, he found customers for 8000 bales of goods as against 1000 at the present time. Then there were several large firms, especially Greek and Armenian, which have now entirely disappeared; and it was the Suez Canal and the Trans-Caucasian railway which stripped its laurels from the old famous trade-route Trebizond to Tabriz. Mr. Stevens estimated the present population at about 200,000, of whom the great majority are Tatars, while the residue is made up of 5000 or 6000 Armenians, a few Persians, Kurds, Chaldeans, Europeans, and half-a-dozen Jews. Herr A. F. Stahl states the number of the inhabitants to be nearer 300,000.

The Belgian customs organization was introduced into Persia in the year 1900; and some years previously M. Naus, with two assistants, had come hither to study the conditions. At that time the greatest disorder prevailed everywhere. The right to control and levy customs was farmed out or sold by auction to governors and other notables,

33. Ali Muhamed, Shah of Persia, deposed in 1909.

who tried to extract as large a profit for themselves as they could. There was no order and control at all according to European ideas, acts of the greatest injustice were committed, and those in power were amenable to bribes from wealthy merchants. Under these circumstances the European commercial houses had great difficulties to contend with, and but for the help of their consuls would have been quite at sea. After the Belgians had introduced order and method into the general confusion, the revenue of the Crown was increased at the cost of individual blood-suckers, and it can therefore be easily understood that the Belgians met with enmity and opposition in all directions. To them were also entrusted the postal system and certain financial business of the kingdom; for instance, the payment of salaries and pensions, which to a large extent were swallowed up by useless parasites. Among these are included the officials of Shah Nasr-ed-din's court; and this is not an end of the matter, for pensions are heritable by child and grandchild, so that the State has no prospect of relief from its burden. In Persia taxes are not payable *per capita*, but by villages; and every village is owned by some high lord, who pays a certain assessment for the whole village, and to collect this and have a considerable surplus for his own pocket he squeezes his dependants.

The taxation returns, therefore, afford no basis for a calculation of the number of the population, which, however, is supposed to amount to 9,000,000. As Persia's national revenues are levied, the country will, before long, be brought face to face with a fatal crisis, and then will be unavoidably thrown open to European speculation and exploitation.

There is little or nothing to be seen in Tabriz but the bazaars and Gök-meshid, or the Blue Mosque, with its stately façade of blue faience, with texts from the Koran in white. Two gates in the town are memorials from 1882, when the Kurds, under Sheik Obeid Ullah, attacked Tabriz and conquered Urmia. The Governor then in command applied for 50,000 tuman to meet the necessities of the case, but kept four-fifths of the sum for his own use,

according to the usual custom in Persia. In the outskirts of Tabriz are several lovely gardens with delicate fruits and luxuriant grapes; and there are situated modern country houses, one of which, Bagh-shumal, belongs to the Crown Prince, and this I visited in the company of the French Vice-Consul, de Rettel, his charming wife, and his still more fascinating sister-in-law, daughters of the English Consul, Stevens.

For the rest Tabriz consists of an interminable collection of yellowish-grey, wearisome, and uniform houses, intersected by a labyrinth of crooked, narrow, and dusty lanes. Among the Europeans several Russians may be noticed, owing particularly to the construction of the new road, which gives Russia another hold in this direction. As in Urmia, American missionaries have a mission-house in the town, as well as a school. The following incident, which occurred some years before my visit, may serve to illustrate the conditions of life in this country. An American missionary had been murdered by Kurds in Urmia, in mistake for a doctor who was said to have poisoned a patient. The innocent doctor was so terrified that he died of typhoid fever; and as the culprit could not be tracked, the Government agreed to pay a compensation of 50,000 tuman to the family of the murdered man—Americans are practical. The fact, however, seems to have been that the Government did not dare to take any energetic measures against the Kurds, and so let the murderer escape.

Tabriz has long been the residence of the Valiad, or Crown Prince, and one day, more out of curiosity than from respect, I waited on this young man, Ali Muhamed Mirza. He received in a quite simple palace, the courts of which swarmed, however, with servants, most of them in dingy torn coats, although, strange to say, it is reported that their wages are paid with extreme punctuality. In the *top-khaneh*, or cannon-house, standing with its front to a court, sixteen Austrian cannons are kept in good condition; but they are never used, for in Persia men live in the deepest, most untroubled peace.

After the soldiers at the door had duly shouldered

34. Gök-Meshid in Tabriz.

arms, I was conducted through two anterooms—where the courtiers stood stiff and upright—to the audience chamber, where His Imperial Highness was just conversing with the richest man in Tabriz, a scoundrel who, in conjunction with the Valiad, carries on the most scandalous speculations in grain, and raises the price of bread to double the normal, so that the poor people perish of hunger. But that did not concern me. I made my reverence, which Ali Muhamed responded to by rising from his seat, after which we sat down and commenced an unusually intelligent conversation.

He is small and rotund, has a double chin, and small, sharp, near-sighted eyes, which cannot dispense with spectacles; but instead of troubling myself to give a description of the Prince's outer man, I will call attention to the portrait he gave me with his own hand, and inscribed with his autograph, characteristically enough, in Russian letters. However I might try, I could not detect any trace of the energetic Kajarian features of his renowned ancestor, Nasr-ed-din Shah; and the malice of the Persians whispered one or two reports of his origin, and he was called in private *ferrash-bashi*, or the police inspector. But this, too, was none of my business; for, at any rate, I found myself face to face with the man chosen by fate to be the successor of Xerxes and Darius, to wave his sceptre over the remains of the kingdom of the Seleucid, Parthian, and Sassanid kings, the dominion of the Arab Khalifs and of the Mongolian Jenghis dynasty, and in the fulness of time to take his seat on the throne of the great Shah Abbas and the victorious Nadir Shah. It was, then, a kingdom with an ancient and brilliant history which was soon to be his. Herodotus and the Bible record its earlier fortunes, and only 170 years ago the Great Mogul trembled before its ruler. The Prince did not by any means give me the impression of being worthy of such high ancestry and such brilliant traditions; he would never be able to steer with discretion and a hand of iron the Persian ship of State a stage farther on its course among the sunken rocks of time.

The throne of the Shahs was ascended in 1794 by the

first of the Kajar dynasty, the cruel eunuch Agha Muhamed; his nephew, Feth Ali Shah, who in unfortunate wars lost whole provinces to Russia, was succeeded by his grandson, Mehemet Shah, who in his turn made room for his son, Nasr-ed-din Shah, murdered in 1896 by an adherent of the Bab sect, which he had tried to root out. Now it was the turn of his son, Muzaffar-ed-din Shah; and Ali Muhamed Mirza, the Valiad in Tabriz, was only waiting for the message which would one day summon him, as the sixth ruler of his dynasty, to place on his head the imperial crown of the Kajars.

It is said of the Shahs of the Kajar dynasty that they have been alternately strong and weak. Agha Muhamed was a powerful ruler; Feth Ali made only unsuccessful war, and under his government the limits of the ancient kingdom were contracted. His son, Abbas Mirza, Valiad in Tabriz, was an able and promising man, who died before his father, and his son was a weak and inefficient ruler. Then followed the forty-eight years' reign of Nasr-ed-din Shah, who, in many respects, raised the condition of Persia, and surrounded himself with all the outward display of power and pomp of a real Oriental despot. His son, Muzaffar-ed-din, was in every respect a wretched and incapable ruler, and if the rule holds good as hitherto—that every alternate Shah shall be an honour to his country—then the present Valiad will concentrate the dying forces of his kingdom, and the smoking flax shall once more flame up into a bright glow before it is extinguished in the night of time.

And, indeed, Ali Muhamed is looked upon as an energetic and strong man who knows his own mind, though he often went recklessly to work as long as his power prevailed in Tabriz. When the Shah undertook his journey to Europe, the Valiad was summoned as regent to Teheran, and the very day the cautious Muzaffar-ed-din drove away from the capital his son began to rule energetically, and condemned some dangerous gentlemen to death. In Tabriz he lived as a kind of banker or speculator, bought up and obtained control of as many villages as possible, and increased his private income.

At the audience a prince of the Kajar house acted as interpreter, but during the conversation the Valiad put various questions in French himself. He asked what I thought of Persia, and which parts of the country I had visited before; whither I proposed to travel from Teheran, and in what languages my former narratives of travel had been published. He read with great attention a letter from Mirza Riza Khan, in which was mentioned my intention of visiting Tibet, and this remark led us to speak of the land of the lamas. And with this the audience came to an end, and I bowed myself out of the room.

Ali Muhamed Mirza had not long to wait before the throne of the Kajars became vacant. His father died on January 7, 1907, at the age of fifty odd years, having lived just long enough to open the first Persian parliament. The new Shah had to pass through bitter experiences at the very beginning of his reign, and found that the imperial crown was not so easy to wear as it had seemed desirable to gain. One cabinet fell after another, and a restless ferment agitated the country and soon developed into a revolution. The young Shah hung over the edge of a burning crater, in constant fear of losing his throne and his life. He tried, indeed, as Abdul Hamid was doing, to make a stand against the men of the new era, and showed himself implacable and severe towards his adversaries. Moreover, in August 1907 England and Russia concluded a treaty which, as regarded Persia, aimed at securing the integrity and independence of the country; but Ali Muhamed's days as Shah-in-Shah—"king of kings"—were numbered; the rising forces ripened and grew up over his head, and in the summer of 1909 he was obliged to abdicate and pass the rest of his life in exile, far from the house of his youthful dreams, on a small pension from his father's kingdom. Now it is his son, a child, who wears the crown of the Kajars, and, if all signs speak true, it will surely be his coat-of-arms which will one day be broken on the grave of Ahasuerus.

From the Valiad I betook myself to Nizam-ul-Saltaneh, Governor-General of Azerbeijan. His native land was Arabistan, in Southern Persia, but as his influence was

irksome to English policy, he had to be removed out of reach of this sphere of interest. Among Russians, too, he seems to be unpopular, for he is a patriot of old descent, and is inimically disposed towards the growing influence of Europeans in Iran.

Nizam-ul-Saltaneh is a noble, animated, and refined old man, with marked aristocratic features, intelligent eyes, and a Semitic nose. He was dressed in old-fashioned clothes—a yellowish-brown mantle hanging in many folds, and a high black *kullah*; not in the black, half-European clothes which are now in vogue. He spoke warmly and enthusiastically of Arabistan, and brightened up when I informed him that I, too, once slept under the palms of Daleki, listened to the purling spring-water in the gardens of Dilkushah, made a pilgrimage to the graves of Sadi and Hafiz in Shiraz, and strolled among the columns of Xerxes' palace in Persepolis, which he had visited forty years before. He had the geography of Persia at his finger-ends, and believed he could even give me some information about the immense desert in the east whither I intended to travel. He promised me, with the greatest kindness, two troopers as escort to the boundary of the province, for one was never safe from Kurdish bandits, and he would provide me with a passport which would open every door. It is, indeed, said that he and the Valiad are not on good terms, and that Nizam-ul-Saltaneh, like the Crown Prince, does what he can to drain the province committed to his care, and adds to the great wealth he already possesses in the form of estates in Southern Persia; but at any rate he was a man worth knowing, a genuine Mohammedan of the highest Islamitic education; a refined, pleasant, affable old man; a relic of an age that is passing away.

CHAPTER XIII

TO THE SEFID-RUD, THE LARGEST RIVER OF NORTHERN PERSIA

THERE was fine dense rain on December 6; the sky was covered with thick clouds, and a diffused twilight spread over Tabriz when I left M. Mornard's house and drove off followed by two troopers. I had received a *teskereh* or road-pass for the 44 farsakh that the distance to Senjan is reckoned at, and according to the contract the owner of the carriage was bound to take me thither in five days. On the first stage the baggage was to be packed on an araba, but afterwards on horses; and as probably I should lose sight of it on the way, I took out all the articles which might be necessary during the early days in Teheran. It was well this precaution occurred to me, as it turned out, for the baggage arrived two weeks late; it had, it seems, been left lying at some station-house, and no one had taken any trouble about it, for one is not in a hurry in Persia. A stern order from the postal department at length set the wheels in motion among the slowworms, and then the baggage was driven at a desperate pace—so furiously that several of my things arrived in a miserable condition, and two dozen valuable photograph plates were totally destroyed, as by the shaking of the waggons they had been knocked out of their cases and papers.

Meanwhile we drive along in the gloomy weather and the thick fine rain which makes everything wet and clinging. It seems an unpractical arrangement that the main streets go right through the bazaars, where the crush is usually such an impediment. We drive through three

of these imposing arcades, where business is already in full swing; and sometimes the narrow passages are so completely blocked by mule caravans that we have to pull up and wait patiently till a gap opens in the crowd.

Now our wheels roll between endless rows of tiresome grey mud houses and walls, against which the quick regular tinkle of the bells awakes a short abrupt echo; and we often meet small caravans carrying goods to the bazaars from the villages and gardens in the outskirts of the town.

We have passed the blue façade of Gök-meshid, the echo in the bazaar arcades has died away, and I have left the last straggling buildings behind with a feeling of relief, glad that we cannot any longer drive over the arms and legs of children and the mules which get in our way. We are soon among rounded hills, and Tabriz disappears behind a rise in the ground and in the drizzle. Down a steep hill we come to a valley, which we then follow up to the village Halatpushan, surrounded by poplars and fields. The country then assumes more of a plateau character, the soil is sandy, small weathered ridges rise beside the road and slabs of clay-slate and sandstone, and we find ourselves in a great, broad, longitudinal valley between low mountains. Our horses trot at a good pace over the open flats, then across deep ravines, and again, as for instance at Basminj, over a three-arched bridge of stone and brick across a small brook. Meagre steppe shrubs, brown and red, wither by the side of the road, along which tramp small local caravans; the long trains of the humped animals of Eastern lands are absent, and one misses them. All the more common are the caravans of asses, which succeed one another in long lines to the town, hundreds of asses carrying sacks filled with hay, straw, and grain. Tabriz abounds in asses, small wretched creatures, which form a very characteristic feature in its yellow streets, and are so different from the tall, handsome, and well-groomed riding asses from Bagdad, which often fetch a high price.

By a river with a bridge in four arches stands Seidabad, where we arrive after a drive of three and a quarter hours, to rest a while and change horses. My driver is in a bad humour, and insists that it is impossible

to reach Senjan in five days, that it will take at least seven; but I know these gentlemen of old, and that only a tuman note is needed to make him take a totally different view of life and make a smaller estimate of distances. And so he is in a hurry to mount the box again, and on we go over good road to Shible, where the steep village street is blocked with tightly packed asses, and where an old caravanserai of the time of Shah Abbas still remains. All day long there has been small rain, but now thick heavy drops fall, and the dust, plastered together, turns into mud, smooth and slippery. A small stream of rain-water comes dancing down the middle of the street, and the horses flounder in the slush.

Immediately beyond the village begins the rise up to the Shible pass, which is low and easy, and scarcely noticeable by a mounted man; but for a vehicle it is no joke, for the road mounts up by nasty awkward zigzags, with a winding ravine on the right. The rain pours down, it is dark and gloomy, the road becomes softer and softer and more treacherous, the horses stumble, the wheels slip in the soft mire towards the slope, and at times the position is so hazardous that one would rather go on foot. Small obstinate asses add to the difficulties, but all goes on well, and when we come to the summit of the pass the heavens open their floodgates and the rain pours down in bucketsful.

From the pass we descend rapidly, and here, too, there are breakneck hills. The rain beats against the hood, which is a dangerous contrivance, for it prevents me from hopping out at the right moment if the carriage shoots down a slippery hill. My driver and his young colleague go on foot, shouting, and brandishing the whip before the horses to make them struggle up again with all their strength when they slip and stumble in the mud. But soon the descent becomes less steep; they can sit up on the box and drive along while the rainwater drips from their clothes. The donkey drivers we are always meeting have thrown over their heads all the empty sacks and rags they have at hand.

At the southern shore of the small lake Guru-köl,

which we leave on the left hand, many hundreds of ducks are seen; no villages are in sight, but there are tilled fields.

With the rain becoming less heavy we splash through the clayey mud, over flat open country, skirted at a distance by mountains. By a decaying bridge, of which only one arch has withstood the attacks of time, while the others are half in ruins, we cross the river Haji Agha-su, and on the farther side halt for a while at the village of the same name. Some women on camels, and seated in the covered wooden cages with curtains which are called *kajeveh*, were just setting out for Tabriz; probably they belonged to the harem of some important nobleman.

Now appear here and there small grey villages, among them Dash-chasan, and to the north-east a transverse valley whither the water collects from every direction. The road, which here is irreproachable, runs over a flat rise in the longitudinal valley, and on the other side the land falls gently, while a cold piercing south-east wind blows in our faces. At the village Tikme-dash there is a *chapar-khaneh* or rest-house for travellers with post-horses, where we arrive in a darkness but slightly relieved by the moon, and hasten to light a fire and dry our rain-soaked clothing.

When we prepare to start again on December 7, the soldiers of the escort declare that their horses are tired, and that therefore they will return to Tabriz; but when I remind them that they are under the orders of the Governor-General they mount with surly looks and follow us. In this part of the country there has been little rain, and there is not a trace of mud on the road, which, nevertheless, is difficult to travel, owing to the innumerable ravines and erosion furrows where there are no bridges. The ground is white with hoar-frost, and an unusually dense haze lies over the country; it feels damp and clammy, and hides the view, and at length blue sky can only be seen occasionally in the zenith. A brick caravan-serai is called, as usual, a Shah Abbasi. The ground is a series of spoon-shaped eminences or spurs separated from one another by deep channels. We go down steeply to

the bottom of each of them, and as steeply up again to the summit of the next. The dales dip southwards to converge into a main valley. The traffic is slight, and we meet only small caravans of camels and asses.

The breeze that is blowing seems to sweep the mist together; it thickens and collects to such a degree that, when we are at one of the black posts of the English telegraph line, its next two neighbours are quite invisible.

Outside the village Gajin a caravanserai of the time of Shah Abbas is in such good condition that it can be made use of, and round about the stately building are grouped miserable mud cabins—an illustration of the difference between the good old times and the new, between prosperity and decay. These memorials give everywhere a striking impression of the great Shah's foresight, and of the interest which he took in the commerce and the development of his kingdom.

Here we were to change our reluctant warriors for new; but as the latter did not choose to turn out, and the old ones took their departure, we continued our journey without an escort, the risk here, far from the country of the Kurds, being slight. Nizam-ul-Saltaneh's fair promise of protection for the whole distance vanished in smoke, as most other affairs do in modern Persia—a deal of show, a good beginning, and no result. So it was with the baggage, which was sent off so promisingly on my araba, and then came to a stop. So it is with the roads, which in the immediate neighbourhood of towns are splendid, well-kept alleys, but farther out are left without care and attention. A degenerate race, without orderly control, without discipline and obedience; a morality which reminds one of whitened sepulchres; a language which produced one of the world's richest literatures, but is now spoken by a people which has lost mastery over itself, and is spoken in a land which seems doomed to disappear as an independent state. Everywhere is seen neglect and decay, an indifference which knows no other rule of life than *laisser-aller*. And yet, having once visited Persia, one longs to return thither, one is glad to be back among the kind, inoffensive people.

The mist becomes thinner; now we can perceive six telegraph posts at a time along the road. On the top of a donkey-load a turkey-hen sits swaying; she will be tender, poor thing, before she reaches her journey's end. A caravan of young dromedaries is travelling in the same direction as ourselves; frightened by the bell-ringing the long-legged animals begin to prance, lose their loads, and get entangled in the ropes. The ground is difficult and exceedingly hillocky, and the road goes up and down, soft soil is everywhere, and only two small banks of solid rock are seen. In a very deeply excavated valley stands the village Kara-chemen with its river. We make a halt outside its little *kavekhaneh*, and feed the horses with loaves of barley meal.

In the next valley, where there is also a stream, a camel caravan is resting, its drivers sitting in a group smoking and chatting. It is useless to attempt to reckon up all these drainage valleys, for we go up and down all day long, and generally can drive only at a walking pace; the coachman goes on foot uphill, and at the following descent he puts on the brake. All the larger valleys have names, which I note down in passing. From the top of every hill there is an extensive view to the east and west, and from every valley bottom one can see a short way towards the south, in which direction the land falls. Sometimes the road has been worn down into a ditch by the traffic, and the carriage struggles along the bottom, while I have continually to assist in keeping the balance, now on one side, now on the other. A dead camel lies on a hill near a camp fire, where his owner had, no doubt, waited to see if he could be saved. Rain pours over a dark range to the north from densely packed clouds, and southwards, too, the sky is threatening; but the sun sheds its warmth over the road as the mist continues to clear.

The village Gerib-dost, with its river, lies at the bottom of a valley, begirt with poplars. Nestling in the depth of the valley where the water flows, these villages look like oases in the desert. The next in order is called Turkman-chai, the largest we pass in the day's journey, and we drive slowly and carefully through its narrow

intricate lanes. A sheep is being slaughtered at an open place by a brook—Persia was once the victim in Turkman-chai, for it was here that the disastrous peace was concluded in 1828, when Feth Ali Shah lost two of his most valuable provinces. Turkman-chai is now the property of a gentleman with the title Munever-es-Saltaneh, contains 500 houses, and yields an annual income of 4000 tuman.

Haji-gias, again, the village where we pass the night, consists of 100 houses, owns a stock of 4000 sheep, and is subject to Muktadir-es-Saltaneh in Teheran, who derives from it a revenue of 2000 tuman a year. Wheat and corn are cultivated, vegetables and melons, and in the gardens ripen grapes, apples, pears, apricots, almonds, and walnuts. All the inhabitants of the village are of Turkish origin, and its "elder" has the title of *ak-sakal* or "white-beard." January, it seems, is usually severe, and not infrequently the snow lies three spans deep. After heavy summer rains the main river, which is here called Karangu-chai or Mianeh-chai, swells up so that it cannot be forded.

A decent old man took charge of me and led me to the *bala-khaneh* of the station-house, which had no windows, but three doors opening on to a balcony. He roasted a chicken over the fire, and brought me bread, sour milk, tea, and grapes. I had now no provisions of my own but sugar, and my table necessaries consisted of a spoon, knife, and fork; I lived in much the same style as travelling Mohammedans, which is practical and instructive. In Persia the traveller's rank and dignity are measured by the number of his servants. The more numerous the rapscallions and idlers that swarm in his wake, the greater the prestige and consideration he can lay claim to. As I had not a servant to be seen, but let the coachman or his boy carry my things up to the station-room, it was taken for granted that I was a most insignificant traveller who had not means to allow himself the smallest luxury. But when I was questioned I asserted that the drosky would have been too heavily laden if I had brought servants with me, and that my staff was waiting for me

in Teheran. The good Tatars, however, always waited upon me and served me to the best of their ability; and as I could talk to them in their own language, which I had learned many years before in Baku, I had no difficulty in gaining their confidence.

After a breakfast which, on the whole, was a repetition of the supper, we continue next morning our endlessly long journey to Teheran. At the very first hill the horses jib and back, and I spring out in a hurry lest I should roll with the carriage over the edge. But the coachman gets command over them, and a little later we pass in the next valley over a bridge which is so narrow that the four horses, harnessed abreast, can only just squeeze through. They close in together as tight as possible, and the two outside have a narrow escape of falling over, for there is no rail to the bridge. But here, too, we come off all right, and then cross three terribly deep dales. The mountains to the north are covered with snow to the foot, and the rising sun throws a fiery red glow over the southern mountains, which, however, soon pales and vanishes as dense clouds collect over the sky.

At the village Suma we met two horsemen from Mianeh, bringing a telegram from Nizam-ul-Saltaneh, in which he informed me that he had given orders for a new change of escort at Mianeh. However, the soldiers had taken the matter into their own hands and had turned back.

The two horsemen were able to give me the welcome news that the pass Kaplan-kuh, which lay in front of us, was not snowed up. The heavy snowfall which occurred farther north, where the mountains were clad in white, had, therefore, not extended so far.

The road in itself is good but never level; it either goes up or down. On a rise above the village sits a solitary old beggar-man and calls out, "*Allah emr versun*" ("God prolong your life"), and two exceedingly ragged women come running up to the carriage, each holding out her hand for alms.

Beyond the villages Kara-chö and Bolanlik we drive over the elevations which stand on the left bank of the

Karangu-chai and still separate us from Mianeh. Uphill we have to go on foot, and when we reach the top we have steep slopes on both sides, enjoying an extensive view over the extremely diversified country with its flat undulations, which are too rounded and uniform to produce any picturesque landscapes. In the distance Mianeh may be distinguished by a greyish-blue veil of smoke which rises from its chimneys and forms a light haze in front of Kaplan-kuh.

This range now stands out in all its length and dominates the eastern horizon with its dark crest entirely free of snow. The road runs down to the bottom of a tributary valley, and we follow its stream, avoiding hills for a time. The valley is small and narrow as a hollow road, but the hills at its sides are low and not very steep. In an expansion lies a village with room enough for its huts and fields, and a little farther down we come to the broad valley of the Mianeh-chai, with its bottom filled with banks of sand and pebbles and erosion furrows, which testify to the huge volume of water which the river holds at certain seasons. The river itself, formed by all the streams and brooks we have crossed during the latter days, is now quite insignificant, though its grey turbid water, which we drive through fourteen times, rises in its deeper places over the wheels of the carriage and fills the bottom of the vehicle. Here it is vain to try to make a road; we drive where the ground seems best. The whole valley floor is certainly filled up in spring and summer and after heavy rains.

We have on the right Mianeh-bagh, whither an irrigagation canal leads off from the river, and shortly after from the side valley Guru-chai the small town of Mianeh comes in sight with its houses, trees, straw stacks, and arable ground in an expansion. We lose ourselves in a confusion of grey mud huts, uniform and of the same height, where only a small green mosque strikes the eye.

During the hour I devoted to Mianeh, chiefly famous for a remarkably poisonous species of bug, I looked in on the head of the telegraph office, a German, Herr Renz, from Odessa, who with his wife and children had spent

three years in the place. He informed me that Ferman Ferma of Teheran was its owner, and that the revenue amounted to 8000 tuman. There are no gardens in Mianeh, but there are some in the surrounding villages; rice and some wheat are cultivated, and the country chiefly depends on agriculture. Sugar, tea, manufactured goods, etc., are imported from Resht and Tabriz; the cost of living is higher than in Senjan and Tabriz. The English telegraph line runs through Mianeh with three wires, of which two connect Calcutta and London, and the other is for Persia, which made this wire a condition of the concession. In Russian territory the cast-iron posts carry four wires, two being, according to contract, at the disposal of Russia. In Persia there are eighteen or at most thirty posts to the mile, in Caucasia twenty-four as a rule, and in Russia thirty.

At Mianeh several rivers and water-channels meet, converging like rays from the west and south-west. Together they form the river we have recently made acquaintance with under the name of Mianeh-chai or Karangu-chai, and which is a tributary of the largest river of northern Persia, the Kizil-uzen (here pronounced Gizil-özen), which has its source far away in the south in the Persian province of Kurdistan, and which, below Mianeh, makes a very sharp bend south-eastwards, in order at length to break through the Elburz mountain system at Menjil and Rudbar, and approaching Resht in a north-easterly course, fall into the Caspian Sea under the name of the Sefid-rud. Kizil-uzen is the Tatar name, and signifies "red river"; the Persian Sefid-rud means "white river." In many parts of its course the river marks out the characteristic longitudinal valleys which extend between parallel ranges, for, like Tibet, Persia is a typical folded country, where the ranges are pressed up in parallel folds or undulations.

CHAPTER XIV

THROUGH THE PROVINCE OF KHAMSE

Over almost perfectly level plain, at certain times flooded by the Mianeh-chai, we drive to the handsome bridge of stone and brick which crosses the united river in twenty-three arches. The roadway is paved with stone, and the English telegraph posts are built into the brick parapet on the right side. Only a tenth part of the river-bed is now full of water. To the north-north-east is seen the mighty portal of the breaching valley between its cliffs; but we are still separated from the Kizil-uzen by the mountain offshoot which is called the Kaplan-kuh.

Kaplan-kuh rises dark and threatening in front of us, but the sky is clear and the sun is burning as we drive over the foot-hills. As yet there is no sign of a real ascent, for we have to drive to the bottom of a broad ravine, and then on the other side mount higher and higher over mounds and elevations. Already the country to the west seems spread out like a map far below us, riddled, honeycombed, and scored in all directions by the glens and ravines which cause our horses so much exertion. It is a nasty, uneven country, with a fantastic relief sculptured out in the course of time by the combined action of atmospheric forces and running water. And so we go downhill again with one hind wheel tied fast to the bottom of the carriage in place of a drag.

At length the real ascent up to the pass commences, but the road does not run as usual in zigzags, but up the left flank at the edge of the brook. Sometimes it is as narrow as a shelf, and there is barely room for the four

horses; once the outermost horse was pushed over the edge, but he was held by his trace and scrambled up again. Where the rise is not distributed by zigzags the steepness is excessive, and when the road is slippery with rain or heavy with snow it must be a stiff job to take a carriage up to the pass. I had engaged three brisk lads in Mianeh to follow us on foot to push behind and be always ready to put stones behind the wheels in case the horses refused to pull and the carriage began to roll back. With their help, and thanks to the good travelling, we reached the pass in less than two hours.

From the pass, where we met two pilgrims returning home from Kerbela, there is a fine view over the deep and boldly excavated valley of the Kizil-uzen between steep mountains, and then the road goes headlong downhill again, and now both hind wheels have to be tied tight to put enough drag on. Over the river, which carries much more water than the Mianeh united river, a bridge of three arches is thrown, beneath which the water is pressed together; the bridge is partially ruined, and will be totally destroyed and traffic interrupted if it is not repaired in time. Near it stands a watch-post at Karaul-khaneh—Kaplan-kuh.

For a while the road runs along the edge of the erosion terrace on the right bank, which is often seriously undermined by the water, so that we are forced to make short détours. To SSW. is seen the valley which gives a passage to the river, which we leave on the right, wearily mounting up the ascent to another pass called Katteruchan. Winding among hills and through ravines the road brings us at length to the grey village of Jemal-abad, where we put up as usual in the chapar-house. The village contains fifty cabins, and has 150 inhabitants besides women and children. They own about a thousand sheep, and grow wheat, barley, and fruit. Its owner is Ein-ed-Dovleh, and its revenue amounts to 200 tuman in corn and fruit, and 50 tuman in *maliat*, a kind of cattle-tax. Three hundred and sixty villages are included in the district of Mianeh. Though the distance from Mianeh is so short, the poisonous bugs, called *mele*, are not found in Jemal-abad;

35. The Road up to the Pass of Kaplan-kuh.

36. My Persian Escort (at Kaplan-kuh).

they swarm in old houses, where their bites make their victims ill for forty days or two months. The climate here is colder than in Mianeh and Senjan, and most snow falls in January, often lying very deep, and interfering with the traffic. In spring heavy rains occur.

Jemal-abad has also a caravanserai of Shah Abbas' time, and of the usual picturesque, practical, and dignified architecture. Our road, now running through a broad, hillocky, longitudinal valley between low ranges of mountains, is certainly quite dry, but, nevertheless, not so suitable for wheeled traffic, for it consists of a number of more or less parallel tracks at different levels, and unequally worn. We jolt, sway, and shake, and the drive often calls to mind the pitching of a yawl in a rough sea.

Afterwards the ground becomes flatter. We can, indeed, still perceive spoon-shaped mounds pointing southwards, but they become lower the farther we travel eastwards. The steppe, with its yellowish-grey shrubs, thistles, and patches of grass, shows the greyish-yellow and ruddy tints of the desert. The travellers who pass along the road in no small numbers employ asses almost exclusively, both as riding and baggage animals. We now ascend very slowly the right bank of the Senjan river, which falls into the Kizil-uzen not far from the Kaplan-kuh.

Among a few poplars and willows easy to count is Serjem, a small miserable village, where several caravanserais are situated in the only street, which forms part of the great highway. The only purpose of the village seems to be to give shelter to people journeying between Teheran and Tabriz, or perhaps on to Trebizond. Motley groups of Kerbela pilgrims are seen in the quadrangular serai courtyards; merchants and their servants, private travellers and soldiers on their way to Tabriz. But otherwise the village lies quiet and silent, and a large part of it consists of houses thoroughly ruined by rain and defective walls; in its *chapar-khaneh*, where I ought to pay a fee, there is not a living soul, and therefore we go on past one of Shah Abbas' caravanserais, mounted on a terraced elevation.

The route then runs along the flood channel of the

river, with a floor entirely of sand and pebbles, and here we twice cross the river, which may now carry down about 190 cubic feet of water per second. Over the mounds on the right bank runs a path for pedestrians which in one or two places seems a capital practising-ground for acrobats. A man with a sack on his back is walking along at the very edge, and two others are preparing to wade the stream barefooted.

Barren and desolate, dry and bare—only where an irrigation canal or a brook crosses the road small bogs occur. Tasa-kent or the "new town" has a tavern at the side of the road. The human element is now more frequent in the scene, for we meet many small parties of Persian soldiers returning to their homes and farms in Tabriz after having served their term in Teheran, and carrying their belongings on camels or asses. Poor, unkempt, and neglected appear these defenders of their fatherland, as they trudge along the road in dusty shoes, torn trousers, and tattered coats; their uniforms are worse than disreputable, seldom adorned with a fragment of facings, or with a worn cockade on the cap where the lion and the sun swagger among rags.

Sometimes, too, the monotony of the landscape is broken by a flock of sheep grazing, but on the whole one has a foretaste of the great Persian desert in the east; the flat open country, desolate, barren, and grey, which is but seldom broken by a fruitful spot,—an oasis. But now came, at any rate, an unusual interruption, as two carriages rattled along at a bend in the road. The first was packed with as many people as it could hold—two ladies, two men-servants, two children, and a tiger behind. In one of the ladies I easily recognised a European, though she was well muffled up in her bashlik. We had, however, some anticipation that this meeting might take place somewhere between Tabriz and Teheran, for Madame Avers' husband had just arrived at Tabriz when I left the town, and he was to take M. Mornard's place. His wife was of course charming, sweet, and delightful in every respect, and we stood for ten minutes in the middle of the road, introducing ourselves in the first minute and conversing for the

other nine. She had the worse part of the way before her, I the easier. And then she vanished again, like a mirage, in a cloud of dust, and again the stillness of the desert spread all around. The only reminder of civilization near us, after the whiff of it which had just sped past, was the English telegraph line, along which deep secrets fly from India. I longed to get away from these never-ending posts, marks of the net which the commonplace European civilization has spun around the known world, and I wanted to reach untrodden paths where the murmuring wires are not to be seen. Day after day I was rolling along south-eastwards over Asiatic soil, as though I were rolling out a map of hither Asia of full size, and I eagerly looked forward to regions of which no map had been compiled.

Some scattered fields, but no farms or villages; trees only on the left bank of the river. We drive again in the river channel, and our wheels receive an unavoidable and very necessary washing. More parties of soldiers in blue uniforms and red facings, brass buttons, and cockades on their black lambskin caps, come dragging their legs along the highway. They are as ragged and shabby as the others, and they are unarmed, for their weapons are deposited in the arsenals of Teheran when the men have completed their term of service and return home.

After the coachman had quarrelled with the stable-boy, who had hitherto always sat beside him on the box, and was now sent off in the middle of the journey, we came to the *kavekhaneh* of Aliabad, and rested a while to boil eggs in a samovar, drink tea, and eat delicious fresh wheaten bread. And then it was not far to the *mehmankhaneh* or inn of Nikbei, where all the huts and kennels were full of soldiers, who civilly offered to prepare me a place for the night. I had latterly been without an escort, but now it was announced that the Vezir-i-Humayun, Governor of Senjan, had sent five horsemen westwards to meet me. They must have been very short-sighted not to discover my carriages on the road, but probably they were lying asleep in some caravanserai.

On the morning of December 10 the dismissed stable-boy Seid turned up again and made up his quarrel with

the coachman Ekber, for both sat amicably side by side on the box when we commenced the day's journey. And now we had a guard of honour of three soldiers, and therefore all the recruits we met rendered military salutes.

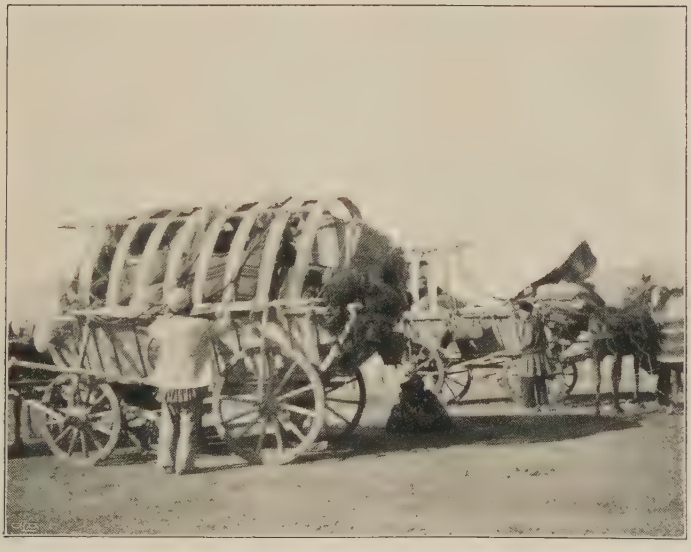
Our route runs up to a small mound whence the valley of the Senjan-chai is seen below us, and to the south of it a veiled range with clouds around its crest and mist at its base. To the north are snowclad mountains, over the river valley sweeps dusky mist, and the sky is overcast with dense clouds.

We get safely over a deep ravine with a terribly defective bridge, but a little farther the right front springs snap with a jolt, and the vehicle is patched up with rope and a pole—it was well that the accident did not happen before. Beyond the village Yengi-jai the horses tried to run away, scared at the sight of a comrade that had fallen and had been skinned; I was not surprised that they shrank from the loathsome carcase. The troopers of the escort came up in a stiff file and executed all kinds of contortions over the horse, bending down with their hands on the ground, swinging their legs over the horse's head, wrestling and brandishing their rifles in the air.

On the right, on the valley floor, begins Chara, a succession of villages and gardens situated on the banks of the Senjan-chai. Among them may be noticed Bare and Nizamabad, the latter named, it seems, after Nizam-ul-Saltaneh. A comparatively lofty group of the southern mountains is called Ashdate-dagh, and is entirely covered with snow. Now the road follows the very edge of the steep river terrace, which seems as though it might fall in at any moment. At its base the river pours in a small cascade over a sill of boulders. The valley contracts; we have been mounting up all day long, as yesterday, and it feels chilly in the sharp head wind. Before us appear the outlines of the grey mud houses of Senjan, and we pass the *guristan* of the town, where the graves are marked by horizontal slabs, not by upright stones. Two monuments over graves of Seids are adorned with green glass cupolas.

A street leads to the entrance of a bazaar arcade where the outer horses are unharnessed, that we may not take

37. A Troublesome Hill.



38. Transport of Goods between Senjan and Teheran.

up all the narrow passage. The bazaar is exceedingly picturesque and thoroughly Oriental, with its old-world booths and workshops in grotto-like recesses on both sides, each with its vault where shimmering rays and a scanty illumination produce pleasing effects against the dark background. Here copper-beaters hammer out pots and pans, here sit potters moulding clay on their revolving slabs, here, again, men are turning and planing in a carpenter's stall, and here bargaining and haggling where Russian cotton cloth is sold. Six men stand round an anvil in a smithy, and beat out the glowing iron with their sledge-hammers, each delivering his blow in regular time and order, and produce a rhythmical ringing melody, a carillon in iron. There loiter beggars and women, and outside the drug-shops great ladies are buying pistachios, kishmish, and henna. There is an odour of the East in these old corridors, where so many hours are spent in a *dolce far niente*, and all the noise and murmur that fills the arcade is a chord expressing the sleepy and dilatory life of the Orient.

Ekber drives on, calling out "*Haida!*" to those who do not take care of their feet; and we emerge again into daylight and soon stand before the Ala Kapu ("high gate"), the residence of the Mehdi Khan, the governor, the Vezir-i-Humayun. I am conducted by a hundred servants in a procession to a rug-strewn saloon without furniture, and am requested to wait a moment, for His Excellency is in the bath, but will appear immediately. He comes, Mehdi Khan, a high official with a self-conscious and dignified demeanour. He is a man of forty years, who accompanied both Nasr-ed-din Shah and Muzaffar-ed-din Shah on their European tours, and he takes great delight in overwhelming me in my dusty dress with a whole whirlwind of his knowledge of European affairs. Among his adherents is his house-physician, Dr. Yonan, a Chaldee from Urmia, who has studied in Chicago, and interlards the conversation with a startling profusion of American learning.

However, I have more inclination for not too remote realities, and I request to be informed how many inhabitants Senjan has, and am told 50,000, a considerable

exaggeration, as I suspect. How much is the revenue of the town? Eighty-six thousand tuman in *maliat*, 10,500 *charvar* of wheat and barley, and 10,000 *charvar* of straw. And what is the strength of the garrison? Two thousand foot and 1300 cavalry soldiers, but the force can be doubled if necessary. Of the inhabitants of Senjan only 5 per cent are Parsis or Persians. The province, which is called Khamse, is divided into eighteen districts, each named after its principal river, and it forms an arbitrary association of very dissimilar elements; the borderlands, Gilan, Kazvin, and Hamadan are occupied by people practically nomads (*iliat*), of various hordes, for instance, the Doveiran, which can raise 500 horsemen, and the Afshar and Inanlu, which extend their summer wanderings over a domain of 30 farsakh in diameter. Kara-burshlu and Ekrad are said to be two poor hordes, which have been forced to migrate to Khamse and settle down there by the government, which calculated that the dissensions which would arise with the original inhabitants would render it easier for those in authority to keep both parties in check.

While we talked the dinner-table was laid, and Mehdi Khan with a polite smile asked me to enter the dining-room. The courses were, fortunately, real Persian, but the plate and service European, and white wine and champagne gave a festal aspect to this unexpected entertainment. The host's amiability has no limits. I intended to stay an hour but six passed away, and even then my host tried to persuade me to wait and listen to the music in the stillness of the evening. But I remained firm, and the postmaster (*reis*) was sent for and ordered to drive up with a drosky; for here, in Senjan, I parted with Ekber and his carriage, who was to return to Tabriz before Kaplan-kuh was snowed up.

The new vehicle was too small for me and my luggage, so a large trunk and a bundle with my bed, cushions, and blankets were packed on a horse, and then we set forth again. A horseman led the baggage-horse, which jogged so heavily that his load continually slipped off, and had to be tied on again. At last we had to make room for the trunk on the drosky, and let the *chaparchagird*, or groom,

take my bed before him on the saddle, and then we got on better.

It was cold, most of the rivulets were frozen, and only the outlines of the surrounding hills could be seen, though the moon shone brightly and clearly. A crack announced that the pole had given way, and the frightened horses would have run away if the horseman with the bed in front of him had not chanced to be before them, and managed to bring them to a halt. We stopped at the *kavekhaneh* of Binab to repair the damage, and took the opportunity of warming ourselves with a cup of tea.

Then we rattle on again along a good road till we come to our night-quarters at the miserable *chaparkhaneh* of Kara-bulak.

It is cool up here on the heights, and when we set out on December 11, the thermometer marks 28° at seven o'clock. Fairly near the southern mountains are seen the town of Sultanieh, and the green cupola of the mosque tomb of Shah Khoda Bende, which soon disappears in the mist-wreaths raised by the warmth of the morning and hovering like a cloud over the town. The road is again in a bad state, for there has been more rain, and the mud is partly frozen and lumpy, partly covered with a thin crust of ice, but soft underneath. The Senjan-chai itself is not visible, but the village Husseinabad, with its tall straw stacks, is probably situated on its upper course. The landscape is exceedingly monotonous, and has not changed much during the two preceding days; there are the same skirting ranges north and south, the same Senjan-chai, and the same dreary steppe with the road and the small caravans. But we have passed the boundary between *Turki* and *Farsi*, and all the names are now Persian. Tabriz is here pronounced Terbis and Senjan Sengan.

At Amirabad's *kavehkaneh* were halting at the same time as ourselves four corpses from Tabriz which had a long journey before them, for they were to be buried at Kerbela, near the grave of Hussein, and they, or more correctly their escort, said that the dead travellers had thirty-five days' journey to Kerbela. They were stowed in their long deal coffins, narrowing to the foot, and were sewed

up in black felt and tied round with ropes. The corpses travelled in pairs on horses, the coffins being tied together and laid obliquely against the horses' flanks, with the heads near together and the feet diverging below. On one horse a living scarecrow sat bunched up between his dead fellow-travellers. It was all very well at this season, when the corpses did not smell, but I remember that, when I was travelling in the summer of 1886 between Kermanshah and Hamadan, the corpse caravans I met emitted an intolerable stench. The Shiites believe that the nearer they are interred to the grave of Imam Hussein the happier will be their lot after death, and that they will make their entry into Paradise led by the hand of the holy martyr. He, therefore, who has the means willingly leaves in his will a sum of money for the purchase of a grave in Kerbela, where the prices vary in the different concentric rings round the central point of salvation, besides an additional payment for transport. For the men who accompany the body on its last earthly journey are also well paid for their trouble. It seldom pays, however, to convey a single body for a long distance, so the corpses have to wait for one another, and only when a fairly large party is assembled do they set out through the abodes of the living.

We passed a caravanserai, where a dozen tall two-wheeled arabas from Kazvin made an interesting picture at the gate, while a dead mule with its mouth full of grass lay across the road. Now we have crossed the watershed of the long broad valley, an exceedingly flat threshold unnoticeable to the eye, and therewith have left the Senjanchai behind us and have entered the catchment basin of the Abhers-rud, which dips towards the east. Tilled fields are more numerous than hitherto; but there must be a scarcity of fuel, for women and children collect dung from the road, just as in Northern China. We pass Nasrabad and halt for breakfast at Hidej.

The country seems to the eye perfectly level, and small dark patches are seen in the distance, gardens or villages. The weather is raw and chilly, and some sleet falls at times. Far, far off, along the route on the left hand, appears a prominent mountain spur which we must pass

39. Corpse Transport.

40. Corpse Caravan at Amirabad.

before night, and amid the constant rumble of the wheels I sit and watch how slowly it grows larger.

Khorem-dere is the name of a town surrounded by gardens. A still unfinished palace, with a façade consisting more of window than wall, belongs, I hear, to the Valiad ; perhaps he will rest here when he takes, one day, the fateful journey from Tabriz to Teheran. For a while we drive on a cornice beside the river, and while it snows on the mountains to the south, the moon rises above the horizon, beautiful and relucent like silver. The weather clears up, the southern mountains shimmer in pure white, the northern stand out in black outlines, the hours fly by, the horses dash on and the wheels creak, and I become dizzy, chilly, and weary of this endless rolling over Asiatic roads. I am glad when the carriage comes to a standstill, and the driver says that we are at the hostel of Kerve, where a dozen camels lie ruminating outside the walls.

CHAPTER XV

IN THE CAPITAL OF THE KÀJARS

We leave the town of Kerve next morning in beautiful weather, and drive still through the flat, broad, longitudinal valley, catching only a glimpse of the southern mountains, owing to their distance. Another dark promontory crops up in front of us, and a small isolated knoll rises like an island in the midst of the open valley. In Jarandeh I am told that an unusually elegant caravanserai is *mal-i-Nizam-ul-Saltaneh*, that is, the property of the Governor-General of Azerbeijan. On the right appears a new mountain range which makes a fine show with its snowfields. The steppe, begrown with scanty withered grass, is yellow and affords food to one or two flocks of sheep. The road is now excellent, quite a highway.

We pass the small isolated elevation and the village Karabaghi with its serais; to the east there is no visible limit to the country, but in front of us, to the north-east, the snow-crowned crests of Elburz rise proudly and grandly. The ground falls imperceptibly towards Kazvin, which cannot yet be seen, unless a dark strip on the yellowish ground is it. We rest two hours in Siadehan, a town on the way to Hamadan where Russians are engaged in laying out a new road, for the same horses are to draw us all the way to Kazvin.

With the Russian road on our right we drive on towards Elburz. A little white house is evidently Russian, inhabited by some engineer or foreman. Here a black and white boom is placed across the way, and a payment of a tuman is demanded for passage, certainly a rather high

41. My Carriage on the Road between Kazvin and Teheran.

42. My Servants.

From left to right: Meshedi Abbas, Mirza Avul Kasim, Gulam Hussein, Hussein Ali Bek, and Abbas Kuli Bek.

toll, as we used this road for not more than two-thirds of a mile. Scattered gardens announce the proximity of a town, and we pass Dervash Imamsadeh Hussein and a mosque of the same name, and then Meshid-i-Shah and its minarets come in sight. The graves of the *guristan* lie so closely together and leave such a narrow space free that the wheels pass over some of the tombstones. Then it is not much farther to the blue pretentious *mehmankhaneh* or inn yard, which has undergone no change since I saw it last in the company of Count Claes Lewenhaupt and the other members of King Oskar's mission to Shah Nasr-ed-din, in 1890.

At Kazvin I have still 90 miles before me to Teheran; but the road is divided into stages, where horses can be changed in the Russian fashion, so that one can drive straight through. Though I arrived late in the evening I intended to continue my journey after an hour's rest; but I was informed while I was eating my dinner that a daughter of the Shah had just come in from Hamadan and demanded all the twenty-eight horses the station had at command. My suggestion that the princess could certainly not be so heavy that she could not manage with twenty-four horses had no effect on the superintendent, who regretted that I must wait till the next day. But as the man was also impudent in the consciousness of his power, with the help of the telegraph I soon brought him to his senses; and he politely informed me that horses and carriage would be ready within an hour, a statement which drew from me the question if the princess's proportions had suddenly diminished.

It was eleven o'clock when I started on the 90 miles which still separated me from the capital of the Kajars, in a comfortable and handsome covered carriage. The moon shines brightly, but on this dreary road there is nothing to see, and I can slumber quietly in my corner. The only thing that interrupts the monotony is the huge caravans that pass with goods between Resht and Teheran, and are the thread on which the town, in commercial affairs, hangs. Kazvin has not lost by the changed direction of the great trade-routes, for as the Trebizond trade passed

through this town, so also the caravans to and from Resht go through its gates. It is noticeable at once that we have come on to a great trade-route; here life and movement never cease all night long, and the road resounds with the ring of camel bells, as though the whole country were singing.

In two hours and three-quarters we are at Kevendeh and change horses, which in the same time draw us to Kishlak. It dawns on the morning of December 13. The third stage brings us to Yangi-imam, with its mosque-tomb under a pointed cupola. At the village of Kurdan we cross a ravine, and the station-house here bears the inscription Kordanskaya Zastava, and one has to pay a toll for the use of the newly made Russian road,—the Russians have already firmly established themselves in this part of Persia.

It grows lighter, the sun rises, the camel traffic ceases, for the animals must feed in the daytime, but instead the road is full of waggons and carters. Above and behind the dark outlying mountains of Elburz rise snowclad crests. Another change of horses at Hesarek and then the road, at Kerej, runs over the outermost slopes of Elburz. Here a steep arched bridge of brick crosses a river and Kelat, a picturesque village, stands in a cleft in the hills. We have low mountains on both sides, but Elburz disappears behind clouds heavy with snow. In Shahabad the horses are changed for the last time, and, long, straight and unending, the road stretches on towards a mountain projection situated beyond Teheran. The large city, the El Dorado of decay and decadence, appears in outline, the road turns by degrees into a street which runs through a new greyish quarter of mud houses, and through the Kazvin gate, adorned with plain tiles, we enter the town, and drive, tinkling, through the streets, where I quite unexpectedly meet my old friends of 1886 and 1890, Dr. Hybennet Khan and the postmaster Von Wedel, a retired general. The two gentlemen were coming to meet me, and we go together to Wedel's house, where I wish to undergo a necessary renovation before accepting Mr. and Mrs. Grant Duff's kind invitation to be their guest during my stay in Teheran.

On Teheran there is nothing to be said which has not been said a hundred times already. It is a town that has not the slightest glimmer of the fascination of antiquity, for it has had the honour of being the capital of Iran only during the Kajar dynasty. It also lacks the picturesqueness and rich colouring that still belong to the cupolas and minarets of Ispahan, Shiraz, and Meshed, and its site is uninteresting, on a plain 3700 feet above sea-level, from the soil of which, formerly desert, artificial irrigation has produced fruitful fields and luxuriant gardens. Only the view to the north, where Elburz presents a background changing with the weather and the illumination, and where Demavend, "the abode of spirits," raises its volcanic peak 18,600 feet high, is such that one is never weary of turning one's eyes in this direction. For the rest the town is a maze, an intricate confusion of uniform houses with flat roofs and windows and doors opening into courts, a conglomeration inhabited by 200,000 Shiites, an anthill where there is no activity, a town surrounded by a useless wall with five great gates and a dried-up moat. Among the simple houses of the citizens stand, here and there, palaces of the Shah, princes, and nobles, defectively built, pretentious, and commonplace, so different from the grand masterpieces of solid and tasteful architecture formerly erected by the great kings of Persia, of which there are some remains even now, after a lapse of 2400 years. A few mosques also break the monotony, but they do not charm the eye with elegant inlaid tiles, and cannot compare with the temples in the older Persian towns, and even the large, newly built chief mosque bears from its foundation the birthmarks of architectural decadence on its front.

And so there is no pleasure in wandering through the hideous streets of Teheran, where dirty, badly kept European tramcars and leaning lamp-posts form an unpleasantly crude contrast to the tones of Oriental life; and where European, Armenian, and Greek shops seem upstarts and intruders among the native bazaar crypts, with their subdued and dignified repose. Twenty years before, when I visited Teheran for the first time, in April 1886, the Oriental type was far less altered than now;

Europeans were then seldom seen, though it was known that Nasr-ed-din Shah did all he could to imitate Europe and open every door for foreign contamination which, far from improving the condition of the country, would lower its self-confidence, increase its dependence, and prepare its fall. But now the last gleam of the genuine old days has vanished. Now there are European hotels, and gentlemen and ladies of Christian blood drive in droskies, and Teheran, like many other Levantine towns farther to the west, threatens to become more and more a cesspool of adventurers, fortune-hunters, and quacksalvers.

However, I had not come hither to lose myself in urban studies of doubtful interest, but solely to equip a caravan for a long journey through the deserts of Eastern Persia. As all other things in the sleepy and benumbed countries of the East, typified by Endymion, this took time, and I armed myself with patience, taking advantage of the delay to make the acquaintance of several Europeans in the Shah's capital. The interests of Great Britain—and these are matters of no small consequence—are looked after by Mr. E. Grant Duff, as *chargé d'affaires*, and his amiable wife does the honours in his hospitable house with not less conscientiousness. I had a real home with them for nearly three weeks, surrounded by all the comforts that life can offer. I had met my host in Stockholm, when he was on duty there, and found him an unusually well-educated and talented man, who knew Persia thoroughly—and all the history of the rest of the world — an enthusiastic collector of Sassanid coins, an eminent archæologist, musician, sportsman, and diplomatist, a man who inspired Persian gentlemen with the greatest respect.

Of old friends whom I had met in Persia on my first journey but few were left: my countryman, Hybennet Khan, who with his attractive young wife soon after left the country where he had lived thirty-four years, and in whose house I often, as before, enjoyed much hospitality; Wedel, who had aged since I last saw him and soon after passed away; the wife of General Andreini and her charming daughter, named Bibila, who, though she was born in Teheran and had spent all her life in Persia, still longed

43. A Persian Beauty.
(Photograph taken by an Armenian in Teheran.)

to go home to Italy. The pleasure of re-meeting was clouded over with melancholy, for everything had changed during those twenty years. When I came out as a happy callow student of twenty years and my friends were comparatively young, life presented itself to me in bright colours, blooming as roses in Shiraz; but now everything was tame, the sky of Teheran was grey and heavy, the rosy hues had faded, and even the sun in the ancient coat-of-arms of the kingdom seemed ready to sink behind the lion's back. But that is always the way with places one sees again after long years. One leaves them in sunshine and light, one decks their remembrance in a robe of fictitious beauty, and one comes back to the dismal reality in rainy weather and beneath leaden clouds.

One of my old friends, then general and head of the Persian telegraph department, Houtum-Schindler, whom I met at Bushir in the Persian Gulf in 1886, was now Swedish consul-general in the land of the Shah, and I need not say that he overwhelmed me with kindness, and in the most unselfish manner assisted me by word and deed. No one else has crossed Persia in all directions as Schindler has,—it was part of his work at one time to reconnoitre routes for new telegraph lines, and many of these he was the first to traverse. He has written a whole library of learned treatises on Persia, and I venture to affirm with confidence that there is no one at the present time who is better acquainted with the geography of the country than he. He had already offered me his services by telegraph, not only in all that concerned the plan of my journey, but also in all practical matters such as the procuring of camels, servants, and provisions. I visited Schindler daily, and had every reason, as far as I personally was concerned, to be contented with the way in which he discharged the office of a Swedish consul-general. He showed me no end of kindness and hospitality.

For the rest—why I do not exactly know—the Swedes in Persia, that is, Hybennet and myself, were under the protection of the French legation, and therefore it was quite natural that one of my first visits should be to the French *chargé d'affaires*, Count d'Apchier, a genuine,

highly educated, and polished Frenchman, whom I had once before met in Persia.

At the German legation, over which Count Rex had presided for eight years, I found the same pleasant hospitable reception, and made acquaintance with several eminent Germans, Dr. Herzfeld from Babylon, the physician of the legation, Dr. Loewe, and others.

Among my friends of 1890 was the Russian minister's wife, Madame de Speyer, as agreeable and winning as ever. Russia's interests in Persia, no less far-reaching than those of England, are in charge of M. Somoff, whom I was to see again three years later in the farthest east, in Söul, also accompanied by his very charming wife.

I resisted at first, but soon could not help becoming a kind of lion, without the sun, in drawing-rooms, and, whether I would or not, I was drawn into a vortex of dinners and entertainments which would not have disgraced Piccadilly or the Avenue de Jéna. Colonel Douglas, the British military *attaché*, had travelled far and wide in India and Persia, and gave me valuable instructions and advice, and a large map of the eastern parts of the country. Mr. Preece, who had been for thirty-eight years English consul-general in Ispahan, told me all he knew of the great desert in the east. I also became acquainted with the physician to the Shah, Dr. Schneider, and with the family of the customs minister, Naus, and retain none but pleasant memories of my sojourn in Teheran.

Of Persians, who during my former visits were at the height of power and honour, I found not one; all the old dignitaries had vanished with Nasr-ed-din Shah, and had been replaced by new. But of the new I met several, notably the Grand Vizier, Sadr Azam, who was hated by every one and awaited his fall.

I was burning with impatience to start on my journey, but could not think of it until my luggage arrived, and that turned up at last, badly treated by careless drivers on unmade roads. And all my preparations took time. One day at Christmas time I was told that the King of kings, Muzaffar-ed-din Shah, was ready to receive me,

44. Ladies in Walking Costume.
(Photograph taken by an Armenian in Teheran.)

and, accompanied by Count d'Apchier, I drove out to Fehrabad, the newly built, exceedingly singular pavilion-like château, an hour's journey from Teheran, where His Majesty was staying. The court minister, Vezir Darbar, a Tatar from Azerbeijan, received us and led us up to the higher regions of the château, where the Shah awaited us in a small plain room and surrounded by a score of gentlemen.

There stood the unfortunate, pale and worn, prematurely aged shadow of a despot, clad in a very simple black costume, without the least decoration, and with the usual black *kullah* on his head; but he smiled affably, gave me his soft, limp hand, spoke to me in the Tatar tongue, and inquired into my experiences on the way from Trebizond and my plans for the future, and bade me not to forget to send him my next narrative of travel, in which he would be glad to see his portrait inserted. The first part of his request was never to be fulfilled, for he died little more than a year after; but the second I have complied with the more readily that he presented me with his portrait with the autographic inscription *Sultan Muzaffar-ed-din Shah Kajar*, or "From the ruler Muzaffar-ed-din, the King, the Kajar." I had brought with me a letter from King Oskar in the florid Oriental style, which the Shah took and handed to Mushir-ed-Dovleh, with the order that it should be translated into Persian without delay. And herewith the audience came to an end and we drove back to Teheran.

Muzaffar-ed-din is regarded as a decayed and decrepit man, and an incapable ruler, who is freely criticised by high and low in the streets and market-places. Persia had been infected by the ferment in Russia, and a constitution was demanded, while no one clearly understood the meaning of the word, and the Persian people was not ripe for self-government. Ten thousand men gathered together in the large mosques to exchange opinions, the mushchids and mollahs held revolutionary conferences in Shah Abdul Azim, where the Shah's European journeys were condemned, and measures were proposed to preserve the country from complete ruin. How this seething unrest,

only a few years later, resulted in a violent upheaval and in the new Shah's deposition belongs to the events of the past year, which are too well known to need description.

In contrast to his son, the Valiad, Muzaffar-ed-din had the marked characteristic Turkish features of the Kajars, and the same roundish prominent nose and moustache as his father, but he was more gentle and affable in his bearing. To me he was exceedingly kind, and would, with pleasure, provide an escort for my caravan, which he considered necessary, especially in the not too secure borderland towards Baluchistan. The very next day I received a letter from the Minister for Foreign Affairs, written by order of the Shah, and so flattering that I have not the face to reproduce it here. It concluded, I may say, with an expression of "His Majesty's thankfulness that you are beginning a new journey through Persia, his great interest in your future fortunes, and his wish that he may receive from time to time reports of the events of the journey."

The question of the escort was settled in the following manner. Immediately before Christmas the Foreign Minister wrote to Count d'Apchier, asking how many soldiers I wished to have. We consulted with Colonel Douglas, who advised me not to take ordinary soldiers, as they were more troublesome than useful. It would be better to speak with the commander of the Persian Cossack brigade, Colonel Chernisuboff. These Cossacks are, indeed, Persians, but are drilled and commanded by Russian officers after the Russian model, and are incomparably the finest men in the otherwise despicable Persian army. In consultation with the Russian colonel the strength of the escort was fixed at only two men, who were considered quite sufficient, and the selection was made two days before my departure.

Firstly, in the company of the friendly and jovial colonel as guide, I was present at the lessons in four classes of the preparatory Cossack school, where instruction is given in Russian, French, and Persian; then inspected the magazine and arsenal, the barracks and

45. Muzaffar-ed-din Shah.
(With Autograph.)

lazaret, and after making the round went into the yard where some hundred Cossacks and twenty officers were assembled—among the latter were two Russian captains of Caucasian origin.

The officers had picked out from the Cossacks twenty men, for whose excellent qualities they could vouch. To these the colonel made a speech, setting forth the nature of the enterprise, that it was a journey through desert regions where perhaps we should be short of water, but that those who were eventually selected would receive a higher recompense than in ordinary circumstances. And, in conclusion, he ordered those of the twenty who were willing to go to take two steps forward. All but one stepped forward, and this one was believed to have a sweetheart in Teheran whom he did not wish to leave. The Colonel now suggested that I should point out the men whom I judged, from their outward appearance, to be most suitable and worthy of confidence,—they were five. Among these the Russians especially recommended one, and when I had decided to take him, he chose his comrade himself, whereby I obtained two men who knew each other well and would hold together.

To these two the Colonel made a special speech and gave them some details. Their pay of 3 tuman (a tuman = 3s. 7d.) a month they would receive in full, while I had to pay them in addition 3 kran a day or 9 tuman a month. They would, therefore, receive four times their usual pay, and their service would be very light as long as they were attached to me. All the outfit necessary—warm clothes, cloaks, boots, bashliks, felt rugs, rifles with fifty cartridges—they would receive from the Colonel, but were not to take horses with them, for the intention was to visit desert regions where only camels and dromedaries can survive. They would receive free rations in the caravan, and would house in a tent given them by the Colonel. Nothing was settled about their journey home except that we were to come to an agreement about it in Seistan.

The Colonel, who was a sincere and generous Mecænas, added to his kindness by asking me to accept a brand-new

Cossack saddle and a large convenient tent as a present from the Russian officers in Teheran. It was a splendid Christmas box and just what I wanted. I rode on the saddle afterwards all through Tibet, but the tent is associated with a sad remembrance, for it was in it that my caravan leader Muhamed Isa died a year and a half later.

After the day had been further celebrated by a noisy breakfast at the house of the good Colonel, who drank a toast in foaming champagne to the success of the approaching journey, my two Cossacks came to the English legation to report themselves ready to enter my service according to Russian regulations. They were given leave till the next day, when they were to help with the packing, inspect the baggage, and divide it into equal loads.

46. My Persian Cossacks and Gulam Hussein.

CHAPTER XVI

THE START FROM TEHERAN

THE journey which I was now on the point of beginning from Teheran was by no means intended to be an exploring expedition; for the parts of Iran I proposed to cross were already well known; detailed maps had been compiled of them, especially by English and Russian travellers, nay, even in the misty ages of antiquity, world-conquerors had marched through the country with immense armies, and 600 years ago the great Marco Polo had steered his way through the desert regions of Eastern Persia. But, nevertheless, I had chosen this route to see with my own eyes districts of Persia which I did not yet know, and I looked upon the undertaking simply and solely as a lesson in geography. Far in the east, in the great deserts, I might, however, find opportunities of crossing once or twice districts which had never before been visited by Europeans.

Considering, however, the length of the route, the undertaking was no mere trifle, for the distance from Teheran to Nushki is 1490 miles, or as far as from Stockholm to Palermo, or from Warsaw to Madrid. It was therefore necessary to equip a caravan which could hold out on a long and solitary route, and make its way through the deserts without being too dependent on the villages along their margin.

Let me begin by introducing my attendants. Mirza Abdul Razul was a man of thirty-five years, who left behind a wife and two children in Teheran, and whose proper duty was to act as secretary; but as he turned out to

be a skilful cook he undertook before long the kitchen department and the attendance also. The word *mirza* betokens one who can read and write when it stands before a name, but prince when it stands after. My Mirza, as he was called for short, was a quiet and taciturn man, who performed his duties honestly and thoroughly. He had never before undertaken a long journey, and he enjoyed immensely the free life in the desert lands.

Avul Kasim was also from Teheran, forty years old and married; he had been in Bagdad and Kerbela, in Nejef and Basra, Bushir, Shiraz, and Ispahan, in Resht and Tabriz, and had therefore travelled far in his own country. He was a tall, black-bearded man, and looked a regular bandit chief; but he had good testimonials from several Englishmen, and from the very first showed himself experienced, vigilant, and industrious. He certainly did not spare my pocket, and was very ingenious when there was a question of finding out provisions for himself and his comrades to consume in the desert, but I let that pass, thinking that it was best that they should provide for themselves.

Three men were appointed to look after the camels. Foremost among them was Meshedi Abbas, also called Kerbelai Abbas, because he had visited the tombs of Imam Riza and Hussein, which pilgrimage confers a title corresponding to the *haji* of Mecca pilgrims. He was a Tatar from Tabriz, and could not speak a word of Persian. He had travelled far and wide as a professional caravan leader, and had been twice at Trebizond, among other places. He loved camels and took the most tender care of them, and was a practical, useful, and reliable man.

Then there was Gulam Hussein, twenty-seven years old, from Western Khur, who had a wife and children in that town, and had made numerous journeys in Khorasan, to Tebbes and Yezd, to Askabad and Asterabad. He, too, was an excellent servant—always happy and agreeable, and pleased with his arduous work. Habibullah, from Mehabad near Ispahan, was thirty-five years old, and had travelled much—marched, to be exact,—for caravan men

47. Gulam Hussein and my Riding Camel.

almost always go on foot. He behaved well, but often quarrelled with the others.

Lastly, there were the two Cossacks, Abbas Kuli Bek, *vekil-bashi*, or corporal, with authority over 60 Cossacks; born in Teheran, thirty-five years old, married; he had accompanied Nasr-ed-din Shah to Tabriz and Meshed. Under his command was Hussein Ali Bek, twenty-six years old, melancholy since his wife had been carried off by cholera; he had been only to Resht. Both Cossacks were unsurpassable in loyalty and trustworthiness, and took their share of all the harder work, packing, pitching camp, setting up tents, etc., which was properly the duty of the other men. With these they lived on the best of terms and shared with them the large tent. Only the three camel men slept, according to their custom, in the open air beside their charges, so as always to be close at hand and ready to watch over them. All my servants received a month's pay in advance, so that they might not leave their families in destitution.

We were, then, eight men in all, and eight mouths were to be fed from the camels' loads on the way to Tebbes, where we could replenish our stores. The water question was a more difficult problem. I had not decided on any particular line on the map, but it might happen that we should find ourselves in salt or sandy deserts, where sweet water was scarce, and in such cases we must be prepared to carry water with us. My first notion was to have an iron cistern made of the same kind I had used in the Takla-makan; but I afterwards decided to make use of four pairs of sheepskin bags and four pairs of large *meshk* or water sacks of calfskin, such as are used to carry water from the springs or sprinkle the streets and roads in summer.

While Mr. and Mrs. Hybennet were so kind as to make all the necessary purchases of preserved meat, jam, tea, and coffee, etc., the other supplies were procured by one of the legation's gulams, Rahim, whom Mr. Grant Duff placed at my disposal, and who, in consultation with Avul Kasim, was indefatigable in finding out all that was indispensably necessary. In one of the courts of the

legation, where the men stayed, the baggage was piled up and soon assumed disquieting dimensions. I need only mention rapidly the most important of the goods purchased: for my own use a pair of warm felt boots, a *pustin* or sheep-skin coat of the Turkestan pattern, a candlestick with a glass shade, hand-basin and can, stearin candles and matches. Further, for general use, two *mangals* or iron braziers for burning coals, with their tongs, two large sacks of charcoal to warm the tents and light the camp fires, iron pegs for pitching tents, an iron spit to roast *kebab* over the fire, two spades, several hammers, axes, picks, and pincers, teacups and plates, stewpans, cans, dishes and bowls, two samovars, a trough for washing rice grains, buckets and pails. Flour and rice were stowed in sacks, the other provisions in wooden boxes—sugar, tea, spices, onions, dried vegetables and fruit, syrup, honey, bread, etc., and in *kurchins* or double bags were packed all the vessels wanted for daily use. New pack-saddles were also bought; cloths and halters for the camels, caravan bells and rattles, rosettes of thread, finery and streamers to decorate some of the animals—well, I cannot remember everything—lanterns, hard and soft soap, linen to mend the tent, and a number of other small articles.

All the men were rigged out from top to toe before the start, and took their belongings with them in kurchins, and very soon the baggage made good-sized loads even before we had bought the large supply of *pambedaneh* or cottonseed on which the camels subsist in districts where there is no grazing, and which is more convenient than meal cakes, for the latter require water, which was just what we should probably be short of. When all was ready the loads were of the heaviest, and we could not expect the camels to make more than 3 or 4 farsakh in the day. We counted on a month's journey to the oasis of Tebbes—the distance is reckoned at 100 farsakh. But before we reached there and replenished our stores, the original loads would have shrunk considerably. At Siah-kuh, on the edge of the desert, we would try to find a competent guide, and on the way from Tebbes to Seistan the wells are said to be not so far apart.

Though I was at a centre where several large caravan routes meet and cross one another, it was anything but easy to buy camels. Consul-General Houtum-Schindler and the Persian servants of the British legation did their best, and both Tatars and Persians came daily with long strings of camels, but either the prices they asked were absurd or the animals were of poor quality and tired, and did not look as though they could survive a long desert march. One evening a dealer came to the legation and asked 40 and 35 tuman respectively for the two fine camels he brought with him. The price was moderate, but fortunately I resisted the man's importunity, and told him to come back next morning. When the pack-saddles were taken off the animals, their backs between the humps were found to be very sore, the skin was worn off, the flesh was exposed and emitted an unpleasant odour. The camels were not worth 10 tuman apiece, and the dealer went off with his property smiling resignedly at the failure of his trick.

At last appeared three Tatars from Tabriz with fifty handsome camels, and by means of the spying and gossip that is rife in Persia we had learnt that the Tatars must, for some reason or other, sell their animals. I had the Hindu veterinary surgeon of the legation and my own men as advisers, and chose the best fourteen out of the fifty —that was the number wanted for our baggage. Of these five were quite giants, elegant and splendid animals, and the rest, too, were in excellent condition, entirely free from blemishes, and without the slightest gall. The breeding season had begun, and they were therefore testy and restless, white lathery froth lay on their flabby lips, they ground their teeth, rolled their eyes, and uttered a low gurgling sound. For all the fourteen I paid 975 tuman, or £184, a high price, but the largest were worth 100 tuman apiece.

Well, now they were mine, and it was a pleasure to me during the two days before the start to go and look at them, and watch one truss of hay after another disappear in the group in the courtyard, and to know that they were resting and storing up strength for the hardships before

them, and perhaps abstinence for some time, in desert regions. I could see that Abbas was in his element as he went about like a sprite, busying himself with his new charges, and he was especially delighted to find among them some powerful Turkman camels with which he had travelled two years before on the great road through Khorasan. The gentlemen of the British legation came, one after another, to admire my four-legged travelling companions, and Mrs. Grant Duff did me the honour of photographing me as I sat perched up between the humps of the largest in the troop.

New Year's Eve was kept in grand style in Teheran. After a last pleasant dinner with Mr. and Mrs. Grant Duff I betook myself to the French Embassy, where Count d'Apchier had gathered together all the Frenchmen living in Teheran, and where the dancers glided smoothly and lightly through the handsome rooms to the tune of well-known melodies. When the midnight hour struck, the good Count called for silence, and, while the guests gathered round him with champagne glasses raised, in eloquent words and in the beautiful language of his native land he wished one and all of those present, and France far away in the west, a good New Year. The entertainment was a success, quite as brilliant as the Christmas ball given a few days earlier by the Grant Duffs to the English colony. Lastly, during the small hours of the morning I took part in Count Rex's New Year's vigil, when the host drank success to my journey in Swedish punch.

I had, then, a very tiring New Year's Eve, especially as I had already spent most of the day in farewell visits to my friends, and had to pack up after my return from the last feast of the night. But I was up again at eight o'clock on New Year's morn, inspected the loads which lay arranged in pairs ready to be hoisted up on to their bearers, saw the camels loaded and led, tied together in three detachments, out through the streets to the sound of the bells to Shah Abdul Azim's gate. And after a last lunch with the Grant Duffs I thanked them for all their generous hospitality, and just as the stream of New Year

A harem in Tebbes.

visitors began to arrive, I took my seat in a large coach which I had hired to go as far as Veramin, and which, drawn by four horses, carried me forth through the streets of Teheran. Pursued by beggars the carriage rolled along the country road; to the left stood a small mountain group, where there is a coal-mine served by a narrow-gauge railway, and on the right the tomb-mosque of Shah Abdul Azim and the mausoleums of the Kajar Shahs vanished from sight.

Tastelessly and wretchedly restored stands the formerly beautiful tower in Rhagae (Rhages), this ancient town already mentioned in the book of Tobias, and which was sacked by Jenghis Khan at the commencement of the thirteenth century.

Then the country becomes yellower, desolate, and monotonous, and the irreproachable road runs between ruined mud cabins and walls. Husseinabad is a village which belongs to Shah-es-Saltaneh, one of the Shah's sons, and when Taghiabad has been left behind us we arrive in barely two hours at Firuzabad, where the caravan has already settled in a garden. Mirza has furnished my new tent as comfortably as possible, with the tent-bed along the inner wall, two boxes as a table, and a rug between the bed and the tent-pole. Outside lie the camels feeding in a circle, and the piled-up baggage is protected by a couple of rugs from the lightly-falling snow. We must keep a watch at night, for the district is reputed unsafe, owing to robbers. Firuzabad lies at a height of 3245 feet above sea-level.

Short though the day's journey was, yet it was full of significance, for it was the first definite step towards the desert, and I had left the last outpost of civilization behind me for a long time to come. I had certainly passed a pleasant time in Teheran, where the days flew rapidly in the midst of all kinds of occupations; but now I had torn myself away from all tenacious bonds that kept me idle, and now freedom lay before me and deep solitude in the heart of the desert. I commenced a new volume of my diary; the old one with my recollections of restless Batum, phases of life in Trebizond and the environs of the classic

Ararat, had been packed and sealed up and despatched in the bag of the English legation by special post to England and Stockholm.

And on the first page of the new book I wrote, "January 1st, 1906." The day was perhaps lucky for the beginning of a journey, and I wondered what would be entered in the following pages of the diary. The tones of the military band on New Year's Eve still lingered in my ears; here reigned stillness in the leafless trees, eternal and melancholy, but calling me and enticing me out to the limitless desert. A slight strip of cultivation pointed south-eastwards, a promontory in the sea of desert; but in a few days we should leave the last village behind us, and then lose ourselves in a country where no tidings of the outer world penetrate, where no vegetation grows, but yet is so rich in mystical and unaccountable fascination, and where only the winds of heaven sing their dirges over the home of the hyena and jackal.

Therefore I was glad to be on the road, and I rejoiced to see the appetite of the camels. Here there was no economy in their feeding; they were to eat as much as they liked, so that they were fat and sleek when we stood, a few days later, on the edge of the desert and could no longer procure hay and straw from the villages. On them everything depended; they were to carry me and my things to the frontier of the kingdom of the Great Mogul.

I had not slept in a tent for three years and a half, and yet I slept very soundly on the very first night. Early in the morning of January 2 I was awakened by Mirza, who a little later brought in my breakfast, while the other men packed up and loaded the camels. It took them two hours to get ready—that was good for a beginning, and I knew that they would manage it more quickly after experience. The minimum temperature had been as low as 20.8°, and a thin covering of snow lay over the country, which, however, had disappeared at ten o'clock. Consul-General Houtum-Schindler and Preece, who had lived most of their lives in Persia, were afraid that the winter precipitation in the great desert, Kevir, would be a trouble to me, and that the saline ground would be too slippery

49. The "Minar" or Tower in Veramin.

for camels; but I hoped that we should always find some way out of our difficulties, and at the worst, if it rained and snowed hard, we could pass round the smooth salt deserts.

The sky was brilliantly clear, and to the north rose the light blue background of Elburz, crowned with a riband of snow, and culminating in the stately Demavend (*Div-band*, home of spirits), which I had climbed in 1890 up to the highest point of the edge of the crater ring. The camels stood ready, and, led by Abbas, the first detachment set itself in motion, drawing the rest of the train after it. With Mirza and the gulam of the legation, Rahim, on the box, I set out a while later, after paying the 6 tuman which our camping at Firuzabad had cost us in camel fodder, eggs, chickens, milk, etc. We should soon, perhaps, come to districts where the expenses were less.

For one day more the road is practicable for carriages; it gradually diverges from the small offshoots of Elburz, which we saw yesterday on the left hand. Six miles off, to the south, is seen a small, flat, isolated elevation, which is also visible from Teheran, and in the distance behind it stands another like an island rising from the level ground. In a few minutes we have crossed the cultivated zone of Firuzabad, and are again out in desert land, only here and there interrupted by fields and canals. The land slopes imperceptibly to the south. To the east, at some distance, appears the village Kala-i-no, and far to the west Kerisek. A caravanserai bears the expressive name of Kale-kevir, or "desert fort," and Gherchek, Bagherabad, and Gul-tepe are small villages we pass; the last-mentioned poetical name means "hill of flowers."

On most of the canals in the district lie thin white sheets of ice, suspended fully 4 inches above the actual surface of the water, and indicating a considerable fall, either the consequence of an actual diminution in the flow of water or only the sign of a daily fluctuation.

At mid-day a very strong north-north-westerly wind sprang up, which chased clouds of soil and dust along the road, hiding all the dreary view—a foretaste of what awaited us farther on. The ground consisted of yellowish

grey clay, usually without a sign of vegetation; but here and there appeared oases of small gardens or thickets of poplars and willows, marking solitary villages. The country is exceedingly sparsely peopled, and there is nothing to indicate the proximity of a large town but small caravans of asses, mules, and camels, which, laden with chopped straw or grain, are on their way to Teheran.

This road is not intended for vehicles; in parts it is good and even, but often we must cross branches of canals skirted by banks of earth and without bridges, and where these are sometimes to be found they are risky for vehicles. But the worst is when a canal has flooded the road, and we have to drive over ice which breaks under the weight of the wheels. At two such places we drive almost right into the mud, and once, when the ice slabs check the wheel, one of the front springs of the carriage goes to pieces; but, however much we flounder, we can still make slow progress.

In front of us to the south-east now appears a slight broken outline of trees, as usual exclusively poplars and willows, trees which can live at the outskirts of cultivation, and also mud huts, walls and ruins dominated by a mosque. We drive into the first narrow lanes of Veramin and have to cross a ditch—but this is the end, the carriage stops, the four horses go on, and both the springs on the front axle give way so completely that they fly out of their places, and with the wheels and axles collapse under the carriage. Never did a vehicle go to pieces at such a convenient moment. It was my last drive on the way from Trebizond, and at Veramin I was to mount one of the camels. The driver demanded 25 tuman for the journey to Veramin, and I was reconciled to the exorbitant price when I saw him make good the damage temporarily with ropes and straps, and cautiously draw the carriage to the nearest forge.

We had driven past the camels early in the day, and had plenty of time to look about in the town Shahr-i-Veramin, as it is called. There is, indeed, a caravanserai here, and the man in charge invited us to enter, but its single room was too dirty and too frequented to be a

50. Seid Mustafa, 12 years old, and Seid Mortesa, 9 years old, both born at Ferrukhi.

51. Buying Camels in Teheran.

comfortable resting-place. A garden beside an old columbarium was so enclosed in lumber and walls that it was impossible to take the camels in, and instead we tried to make a convenient camping-ground in an airy garden which could boast of only a dozen meagre poplars.

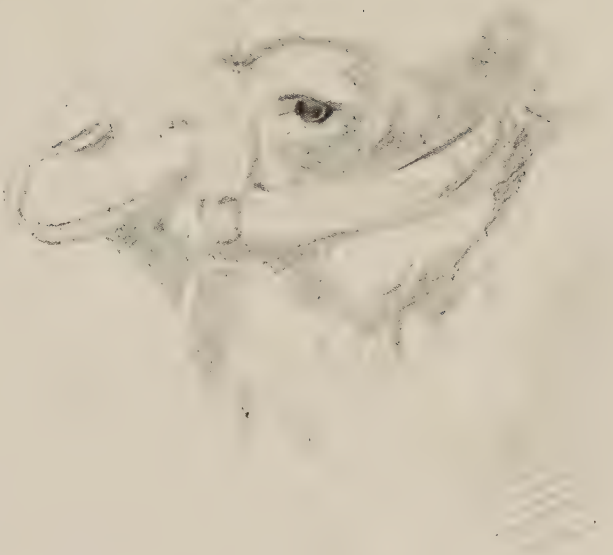
Here our tents were pitched after the other men had arrived, and here we were to remain for two days to complete our equipment and let the camels eat their fill and get up their strength for the journey through the desert. I had, then, plenty of time to look about me. Around us rose ruins of a past age when Veramin, like Rhages long ago, was a town of great importance, as may be judged from the dimensions and construction of certain of the remains. The place then deserved the name of Shahr-i-Veramin or Veramin Town, whereas now we find only a small scattered village. At a distance one seems to be approaching a place of some importance, but on a nearer acquaintance one discovers that the existing dwellings are few and poor in comparison with the remains of those which have for centuries lain in decay.

Beside our garden, close to the market-place, stands a very elegant columbarium, called simply *minar*, or the tower. In cross section it is round and fluted, and so is of the same form as the tower in Rhagae, but it has a curious roof, on which a pair of storks have built their nest; possibly a similar roof once existed also on the tower of Rhagae. The walled-up gate faces a small by-street enclosed between two mud walls. A man who has lived forty years in Veramin affirms that this tower has been a *serdab*, "cold water," that is a water reservoir or a shelter built over a well. Meshid-i-Juma is a large, fine mosque partly in ruins; its *pishtak*, or front portal, has been decorated by beautiful blue tiles, of which only half remain. At another spot, near at hand, a quadrangular mosque court has had four portals, and under its well-preserved cupola, on the west side, is a *shabestun* or temple hall, which has been tastefully ornamented with arabesques in relief, of which numerous fragments still remain. In Emrabad, the "abode of life," a village quite near to the north-west, there are remains, and in Kohne-gel, a village

to the south, is Imamsadeh-Yahiya, a mosque mausoleum, from which a mushtehid says that valuable tiles are stolen to be sold to Europeans in Teheran. Such plundering is a greater disgrace to the purchasers than stealing. Another mosque tomb is called Imamsadeh-Abdullah, but it has no tiles and is in a state of thorough decay, with the exception of its central cupola and the walls which support its vault. Close to the large mosque is Seid Abdul Hassan, a small mausoleum with a cupola, and two other tombs called Sekkin-i-Banu and Imamsadeh-Kharabe. Further, may be noticed the ruins of a fort constructed of clay, as well as numerous walls and houses which, however, certainly date from later periods. That Veramin has now sunk to an insignificant village is due, first and foremost, to the general decline of Persia and its bad administration, but is also connected with the neglect of irrigation and the supineness of the people.

I noted down the names of not fewer than fifty villages in this district, watered by the Jaje-rud, which yet seems to be so deserted and abandoned. A large canal branches off into innumerable and ever smaller threads until the water reaches the various villages and their arable fields. If it snows hard in winter the water-supply is abundant in the following spring, the condition of the people is improved, and the cost of living is diminished. After a dry winter there is scarcity and a dear season. The present year was less favourable than the preceding. There is always less snow in Veramin than in Teheran, as might be expected, since Teheran lies higher and nearer the mountains. Last year it had snowed twelve times in Teheran and only five times in Veramin. This year it had snowed twice in Teheran but not at all in Veramin; instead, the village had experienced a strong north-westerly wind, which dried up everything. However, it seldom snows before January and February, and in March the precipitation takes the form of rain. Only spring and autumn bring rain, while in summer it hardly rains at all.

My trustworthy informant believed that Veramin had about 500 inhabitants, but in the district around and on the way down to the Siah-kuh there were nomads from



52. My Riding Camel.

53. The Ketkhoda or Elder of Kerim Khan.

Kashan and Ispahan, and occasionally Bakhtiari nomads strayed hither. In Veramin and the villages around are cultivated wheat, rice, barley, pease, beans, green vegetables, roots, plums, apricots, pomegranates, apples and pears, oranges, melons and water-melons, almonds, pistachios, walnuts, etc., and most of the produce is sent to Teheran, which absorbs all that is available. Veramin also produces cheese, sour milk, and *roghan*, or liquid butter mixed with salt and grape-juice and kept in sacks of sheepskin, in which it hardens into a solid mass. The finest food, my servants asserted, was roghan.

Singularly enough, the people in Veramin were very ignorant about the desert, though it lay in their immediate neighbourhood towards the east. They said that they never had any business there, and that in the interior of the desert there was nothing to be found. At the edge of the Takla-makan men are often met with who travel into the desert in search of gold, but the circumstances were different here; the people were acquainted only with tracks and paths in the outskirts of the desert, and could give me no information except about the nearest three or four days' stages and the names of the places where we ought to encamp. They had, moreover, a great respect for the desert, pitied us because we were venturing into it, and could not understand what object we could have.

During our two days' rest we denied ourselves nothing, had more than ample supplies of everything, and lived on what the villages could offer. Fresh water from the snowy mountains and springs flowed in a canal past our tents, and we had no need to spare it, but the time would perhaps come when we should have to save every drop and these drops might be briny. There was no lack of mutton, fowls, eggs, and bread, sweet and sour milk, and fruit, and whole armfuls of green fodder were heaped up in front of the camels, which their teeth ground up like machines, and one could see them thrive and grow fat. And fuel we had in abundance, and our tents were warm and cosy; this commodity also might become scarce some time, and we should have to put up with the poor dry plants the desert afforded.

On the night of January 3 the moon shone cold and pale between dark clouds, and the men sat round their camp fire very cheerful and contented, smoking and preparing their food. They were as pleased as I to be on a journey—the taste for the active changeful life of caravan travel is innate in all Persians. Now an inventory was made of all the goods we were to buy the following day, for Veramin was the last place where we could complete our stores, and it was evident that at first the loads must be so heavy that all except myself must go on foot.

On January 4 there was movement and activity about our tents, a continual coming and going; here were seen Persians staggering under heavy sacks which were piled up before my servants' tent, there men were heard bargaining and shouting out orders, and before the sun set we had to pay down 40 tuman for all our purchases, especially for *pambedaneh* or cottonseed, and *art-i-gendum* or wheaten flour.

Then I called all the men to my tent and in their presence made Mirza read the firmans I had received from Sadr-Azam and Mushir-ed-Dovleh, three of which were addressed to the governors of Tebbes, Kum and Seistan; another was an open letter to the authorities in Khorasan, and the fifth could be used anywhere in Persia. The letters to the governors in Kum and Khorasan were only precautionary documents, to be used in case we should suffer shipwreck in the desert, and be obliged to make for the main roads and inhabited places. Mirza read them in a loud voice, and the others listened attentively. The letters were simply proclamations that I must be received everywhere with all the hospitality that circumstances allowed; that all my wishes should be complied with to the smallest detail; that provisions, baggage animals, and guides should be supplied to the extent of my needs, and that, in a word, I should receive satisfaction in every respect. These highly important letters made a deep impression on the men, and they were now convinced that I was no ordinary person, and that it was their interest to serve me faithfully and conscientiously.

They did not understand clearly what the task before

54. Ruins in Veramin.

them was; they knew, indeed, that we were going to Seistan, but not that I intended to force my way through the most difficult parts of the desert. I therefore prepared them for what lay before them, but quieted them also with an assurance that there was not the slightest danger to life, for we should never be far from an oasis, and that we could always reach one on foot even without provisions. A man in Veramin, however, reported that, four years before, a caravan from Kum had gone astray and perished on the way to the neighbourhood of Siah-kuh. About 10 farsakh from the mountain it had fallen in with a *khor-ab*, or salt-water swamp, where all the camels were irretrievably lost with their loads; they sank into the soft ground. Two of their drivers had been frozen to death, and the other three had made for the nearest villages to seek help, but when they returned to the scene of the disaster all attempts at rescue were vain. The same man was of the opinion that our situation would be very critical if we chanced to have heavy rain in the midst of the great Kevir, which would soak the ground all round us and render it impossible to travel in any direction.

But we were still in *abad* or inhabited country, and all day long were heard the tinkling bells of the small caravans which wandered to and from Teheran. Another night descended on our camp. It was indescribably silent around, in the neighbourhood of the great overpowering desert. Only the bark of a dog in the distance was audible.

CHAPTER XVII

THE LAST VILLAGES

My night's rest was twice disturbed by a cat which made itself at home in the tent and jumped over my legs; it doubtless preferred to be under cover, for there was a fine drizzle outside, though so slight that the ground was almost dry in the morning. The minimum temperature was 34.9°, and it felt quite warm when we took down the tent in good time and began to load the fourteen camels. Rahim, who had superintended all the equipment in Teheran, now took his departure with a liberal present, and, as usual, a written testimonial; he was to return with the damaged carriage and took my last letters with him. He must have made a good thing of all the commissions he executed at my expense,—he would not have been a Persian if he had not.

Four chests were placed on one of the largest camels, two boxes and the two tents on another; a third carried my cooking utensils, and so one camel after another was loaded till all stood beneath heavy burdens and tramped out of the village in an imposing procession. They were now arranged in two sets, the first led by Gulam Hussein, the other by Abbas. At the head of each marched one of the largest camels, richly adorned with tassels and red ribands and with a string of tinkling bells round his breast, while the great caravan bells were attached to the side of the boxes of two other camels. It was a fine and attractive sight, and the bells rang merrily as for a marriage feast. Space is limited in the lanes of Veramin, now and then a load grazes a greyish clay wall and the narrow passage is

55. A Dervish at Veramin.

entirely filled up by the compact train of camels. A group of inquisitive onlookers follow in our wake, talking about the unusual spectacle; but the huts become fewer, the ruins are behind us, one loiterer after another troops off, and the desert land lies before us.

At the last canal outside Veramin the first camel in the second detachment is made to lie down so that I can mount on to his back, where there is a hollow formed between the humps and the two sides of his load, so that I sit comfortably and freely, as in an easy-chair, with my legs hanging on either side of the front hump. With compass and watch at hand, and a clean sheet of paper spread out on a piece of cardboard in front of me, I now begin a map of the route which is to be extended to Nushki, and when finished will occupy 234 sheets. Distances are calculated from the camel's stride, which I measure daily along a line 200 metres in length.

Far in the west stand the two small isolated elevations we have seen before, and to the east appears the outermost small offshoot from the foothills of Elburz, with a more marked summit. Siah-kuh, or Black Mountain, our next goal, stands out as a faint and isolated outline to the south-south-east; but though we direct our course towards it all day long and cover $12\frac{3}{4}$ miles, it does not seem perceptibly nearer—the small elevation is still just as faint and looks like a light blue cloud on the earth's surface. We have a conception of great distances. First on one side and then on the other begins the desert,—how immensely far it is to Tebbes, which is only a stage on our way to India!

The day was fine and warm, there was no wind, the whole sky was overcast, but it neither rained nor snowed; the peak of Demavend was hidden in clouds, but there was a clear view all round to the horizon, and I sat up in my swinging observatory and made my notes. It was a long time since I had ridden a camel, and certainly at first one becomes a little stiff in the back; but by degrees one becomes supple again and hardly notices the swaying movement. Before me a huge bell swings its ceaseless ding-dong at every step of its bearer, and behind rings

another, and the sound follows us faithfully on the road through the desert. Every step removes us farther from country blessed with water and productiveness, the land of Ormuzd, and takes us a step nearer to the God-forgotten domain of Ahriman, where drought and desolation reign.

Before us is seen a spot which gradually grows larger —a mule caravan from Khave carrying chopped straw in network bags to Teheran. It is followed by a flock of black sheep on their way to the shambles of the capital, and then comes a train of twenty camels laden with hay, striding heavily and slowly northwards. A little hamlet stands here and there to left or right, consisting of a couple of tiny huts and a few trees, but there is not a single human being visible to be asked the name of the place. Two long banks of earth seem to be the last fragments of a fort, and beyond, to the left, the ground is slightly undulating. At length we march quietly by a man who is ploughing his field with a pair of oxen—a sign of life at any rate; he takes no notice of us, and perhaps is wondering whether a small offshoot from the nearest canal will ever reach his arable plot. The ploughed strip is greyish yellow, just like the rest of the soil. Here water only is needed to convert the whole country into a continuous garden, here and there interspersed with arable fields. There is great wealth buried in this slumbering land, but there is not enough water, and it is certainly doubtful if it could be conducted in sufficient quantities from the mountains so far away.

Only the bells ringing harshly and monotonously in our ears break the silence of the wilderness. We again meet a dozen camels with straw, and again a ploughman drives his ploughshare through the niggard soil; one cannot help noticing such appearances, they are so rare. And yet here and there small lonely hamlets are still seen beside the road, but they are apparently uninhabited, deserted. We come to the village Tejere, with round cupola roofs above its mud cabins, yellow walls and trees and vineyards and a water-tank with a roof in steps. Our way runs right through the village, following one of its lanes. At a canal in which some ducks are dabbling stand two

56. Meshedi Abbas.

villagers, and regard with evident astonishment our slowly moving train, wondering why in the world we take this road, and how we can conceive the mad idea of marching straight into the jaws of the desert instead of following the great splendid road through Meshed or the caravan route through Yezd and Kerman, which also leads to Seistan. May Allah and Ali defend us from the desert, the abode of evil spirits—such is evidently their thought.

We are now out again in the wilderness, and the village disappears behind us. The way is excellent, almost quite level, slight flat swellings in the ground are but seldom noticeable, and the fall south-eastwards is so gentle that it is imperceptible to the naked eye. One might drive all the way. Here we are in a region where water must be conducted along subterranean channels, called *kanat*, to protect it from evaporation; they may be detected by a row of small hills of earth, each one marking a vertical hole going down to the tunnel of the canal; by these apertures men can descend into the underground passages to clean them out. Sometimes we pass kanats which are evidently abandoned, for all the vertical apertures have fallen in.

After a march of 2 farsakh we reach the village Hassar Hassan Bek, and Abbas proposes that we encamp here for the night; but no, we are getting on so well, the ground is so dry, and we may have rain, and then this yellow clay will be as slippery as ice for the camels' pads —let us travel another farsakh; and so the bells clang on again farther on the way to the margin of the desert sea. There is a small open canal in the village with running water, but Abbas does not perceive that he is thirsty until we are a good distance away from it, and then he lies down on his stomach to drink out of a very uninviting ditch. The other men laugh at his greediness, and think that he might have had patience till we come to Kala-no ("the new village"), in the group of trees visible as a slight swell on the horizon, this side of the faint contour of Siah-kuh. But we draw very slowly nearer, our caravan is heavily laden, and moves slowly and haltingly like a goods train towards its destination. The first camel, which carries

two of my old Tibetan boxes, is lazy, and Gulam Hussein is weary of always walking with the leading rope at full stretch. Therefore he chooses out another leader which keeps his pace even with a loose line.

Deh-daghun is nothing but a few squalid huts and trees within a wall. Traces of former cultivation are visible here and there, small ploughed dykes in chequered form to distribute water, and dried-up branches of canals. For the rest the land is mostly waste. The road is excellent for camels; the wet and slippery canals, with their small flooded pools around them, which were so trying at the beginning of the march and made the camels stumble and slip, have now come to an end. The road consists of several tracks side by side, but they are shallower and less worn the farther we go and the more villages we leave behind us. We are near Kala-no. To the east-south-east the country is as level as a sea; to the north it is bounded by a small promontory. To the west there are two more villages, and farther off to the south stand the two small isolated hills we saw from Teheran and also from the Kazvin road. When we come to the village we have been five and a half hours on the march, and the distance amounts to 3 farsakh; in general, laden camels cover a farsakh in two hours.[1]

During the last part of the march it had begun to blow freshly, and the wind increased in strength while we were setting up the tents, so that the men asked if it would not be better to seek shelter in a serai at the edge of the village. But this refuge was in too grievous and ruined a condition to tempt me away from the freedom of my tent. When we encamped, the wind had a velocity of only 26 feet a second, but it rose more and more, and nothing could be more unpleasant than this suffocating atmosphere. Wind in itself is only pleasant when one is camping on a lake shore and the air is pure, and then one does not trouble oneself much about wind; but here it was so laden with soil and dust that it hid everything like a fog; the

[1] A farsakh, or, as it was called in the idiom of the past, parasang, is on an average about $3\frac{3}{4}$ miles. But its length varies very considerably in different parts of Persia and also on different kinds of ground. In general a farsakh is longer on level ground than in hilly regions, where its length amounts, at most, to 3 miles. From Veramin (3022 feet) we had descended during the day's march 220 feet, Kala-no lying at a height of 2802 feet.

57. Meshedi Abbas watering the Camels.

58. On the Margin of the Desert.

small hills like islands had vanished long ago, and even the adjacent huts were only faintly visible in the yellowish-grey mist. Clouds of dust, swept along the ground, found their way through the tent-cloth, and collected in a constantly thickening layer on everything that lay about. In a minute my spectacles became like ground glass, and I had to wipe them constantly. When dinner, a roast chicken wrapped in a piece of soft thin bread, was brought in, I had to make an end of it hastily before the course was too thoroughly peppered with dust. Just when I had finished, a civil villager came with his two boys, and surprised me with the gift of a water-melon, fresh and juicy, and the most welcome dessert that can be imagined when one's throat is dry from breathing this dusty air.

The two boys very calmly seated themselves by my *mangal*, and warmed their hands over the fire, and looked about, till Mirza, thinking that they made themselves too much at home, drove them away. The sparks flew like fireworks from the brazier when it was filled and carried into the tent; the wind howled and whistled among the old ruined walls of the caravanserai; my tent fluttered and flapped, now bulged out like a ball, now driven in by a violent gust, now crushed together by the gale, and on the windward side the folds strained against the pegs, and everything had to be secured by weights.

It grows dim and dark, and this night is blacker than usual. The conversation in the men's tent has long ceased, and in such weather they can do nothing better than go to sleep. But I sit up a little longer, and listen to the old well-known moaning and rushing sound outside, which recalls to mind so many memories of dreary solitary years in vast Asia. I felt that I was in the midst of a fresh enterprise, and that nothing in the world could induce me to turn back. The end might only be attained after long privation and endurance, as the howl of the first storm warned me. I felt in the melancholy winter night like the wandering Ahasuerus, whose fate it was to roam around the world ceaselessly and restlessly, who at home longed for the wilderness, and when there cast regretful glances towards the direction of home. A

stranger and wanderer, whose home was everywhere and nowhere, and who had no abiding city. A poor, lonely pilgrim sitting by the dying embers and raking up faded memories of a thousand nights in bygone years, and astonished at the patience with which he could expect and desire some new experience, a dream-picture which always fled before him over the earth like an apparition. Yes, I was astonished that I had lived through the Lop desert and had ridden out all the storms in the Takla-makan. Sometimes the journey from Trebizond, not long past, seemed to me hopelessly long and wearisome. And yet I was eager to return to the desert; its silent, inexplicable witchery drew me on with irresistible force; I seemed to hear its mysterious voices calling to me from its depths, "Come home." Beyond the great desert I had a vision of the blue snowclad mountains of Tibet, but now the desert must first be conquered. In a few days we should see its endless, flat horizon expanded in all directions, and then after many painful steps we should see the palms of Tebbes, a green patch in the boundless yellow; and I had long yearned for Tebbes, this singular oasis which even on a map looks so lonely and deserted.

Even in Marco Polo's time, more than six hundred years ago, Eastern Persia was occupied by immense deserts, which men could traverse only by carrying water with them, and following the shortest routes between the oases. And we were soon to discover that the conditions are not better in our own time, but rather worse; for a period of desiccation has set in amidst the variations of climate, which is favourable to the extension of deserts. The towns and names which the Venetian traveller mentions in his famous book are still extant—Kerman, Kubenan, and Tun-o-Kain or Tun and Kain—a region now called, however, Tun-o-Tebbes.

The villager stated that Kala-no has 16 huts, and produces wheat and barley, melons, pomegranates, grapes, apples, pears, and mulberries, and also butter, cheese, and *roghan*. The north-westerly wind now blowing was said to be prevalent at this season; the man informed me that if the gale lasted till to-morrow afternoon it would be a

59. The Camels at Supper.

three days' storm, but that if it abated sooner the weather would be calm for four days. He had noticed that this was the usual occurrence. He called the wind *tifun*; singular that this Chinese word should have found its way hither! He used the following names for the cardinal points: south = *ser-i-pain*, or the lower quarter; north = *ser-i-bala*, or the upper quarter; west = *keble*, or Mecca; and east = *taraf-i-Imam Riza*—that is, the direction of Imam Riza, for the tomb of this prophet is in Meshed, which lies to the east. For east and west he had also the terms *aftab-seden* and *aftab-ghurub*, or sunrise and sunset.

The bed of the Jaje-rud stretches as far as this place; most of the water comes down the *rud-khaneh*, or bed of the river, and then is distributed through canals. Snow was confidently expected within twenty-five days, and it is said to lie sometimes two feet deep. After rain the ground becomes *gel* or muddy, and camel traffic is almost impossible, whereas snow is no hindrance.

CHAPTER XVIII

KERIM KHAN, THE LAST VILLAGE ON THE EDGE OF THE DESERT

The gale ceased suddenly at seven o'clock on the morning of January 6, and when I awoke the interior of the tent presented a sorry sight. Everything in it was covered with such a thick layer of dust that no colour but greyish yellow was to be seen; compass, watch, instruments, maps, and books, boots and clothes, were all concealed by an even sheet of the fine particles which all night long had been permeating in through the tent cloth. When I moved a cloud of dust rose from the blankets, and my eyes were almost plastered up with it. Before my usual morning ablutions could be performed the tent had to be dusted and all articles shaken. Mirza rummaged out my things one by one, but they were so saturated with dust that only a long airing could cleanse them. Even now, four years later, fine sand lies between the pages of the diary I was writing at the time of the storm.

When the gale sprang up the day before, the veil of cloud was drawn out into long streamers like knife-blades; but now there were only a couple of light white flakes in the zenith, which, too, soon vanished, leaving the sky clear. The minimum temperature had been 24.1°, and the air felt quite cool at seven o'clock with 26.4°. Demavend made a fine and imposing sight to N. $13\frac{1}{2}^{\circ}$ E., and the whole of the Elburz range was sharply and clearly defined, though much fainter than when seen from Teheran. So much the more distinct were the small heights in the vicinity, with their weird details and fissures, their dry

erosion channels, and their rugged summits without a trace of snow. Far to the south, however, a snowy crest lying beyond Kum was faintly seen.

A sound is borne through the clear, cool, calm air of morning. The bells of a caravan of asses are heard long after their bearers have vanished from sight on their way to Teheran. Their dying tones are pleasant to the ear—they might be a hymn of praise to the rising sun. Yes, the sun ascends dazzlingly clear and bright above the horizon, and perhaps our weather-prophet was right when he said that we should have calm weather if the gale ceased early. So much the better! When one can see at least the country around, riding a camel is very pleasant and comfortable. And it is a pleasure to watch the preparations for departure, and to start oneself on this fine morning. All colours are so pure and clear, all outlines so extremely sharp, the camels look more majestic than ever, their lustrous eyes glow like globes illuminated from within by electric light—it is the image of the sun reflected in their brown orbs. A light steam from its breath hangs round the nose of each camel, and white and glittering rime clings to its whiskers. I smoke a cigarette and let my eyes sweep round the boundless horizon, and rove over the small isolated hills which stand on the way to the desert like the outermost reefs and holms in a fringing belt of rocks.

We steer our course east-south-east, and therefore have Siah-kuh on our right hand, a bluish-grey outline, a screen without relief and shading. The little ridge, however, is fainter at the foot, toning off downwards in consequence of the exceedingly fine particles and the light haze which always hovers over the earth's surface, while the crest stands out more sharply and distinctly. Nearer, to the left, we have the outermost slopes of the small ranges which lie south of the road between Teheran and Semnan. But Demavend dominates all the landscape, and rears itself like a huge beacon and rampart above the desert. The crest of Elburz, which runs below the summit or shows itself behind the cone, is quite free from snow; but the mighty volcano itself is on its southern side scored,

as it were, by dark lines in the snow. On such a day the view from the top must be magnificent and overpowering, and though 15½ years have passed since the day I was up there, I am still vexed that July 11, 1890, was cloudy.

We have not travelled far from Kala-no before the small square patches of cultivation, with their usual irrigation ridges, come to an end and the land becomes at once barren. In some places the ground is quite bare, and is covered with a thin saline efflorescence, in others a few meagre shrubs still struggle for existence. At a little distance, on the left, is seen a flock of sheep with its three shepherds in black woollen cloaks, and farther off a man is driving two asses before him; otherwise not a living thing, not a single crow, a bird common enough in Kala-no.

Our trusty camels march regularly and steadily directly towards the sun, which dispenses its warmth and light more liberally as the hours pass by; and as the air is motionless we feel the glowing heat as in the middle of a summer day, and wish for a gentle, cooling breeze from the north. Here, already, quite a different climate prevails from that of Teheran, where the weather was always raw and clammy.

Even yesterday we were in another country, and I am astonished that the floating dust has so quickly sunk to earth,—in Eastern Turkestan it is several days before the air becomes properly clear after a hard storm.

To the south-east and east-south-east appear small knobbly inequalities on the horizon, but we cannot yet decide whether they are grazing animals, clumps of vegetation, old walls, or trees in a village; they make the line of the horizon rather jagged, but they are still a long way off, and the riddle will be solved in due time.

Now our first *katar* or section of the caravan is led by Habibullah, the other by Gulam Hussein, and Abbas walks alongside now at the rear, now in the front, to see that all the loads are in position. The last camel in each *katar* carries one of our two largest iron bells, regular church bells, which clangs with a deafening noise to the step of the animal. Avul Kasim rides the sixth camel in the first detachment; I, Mirza, and Hussein Ali Bek the first three

of the second. I perceive that my fellows have come to an agreement to ride by turns after we have left the intricate lanes of the village behind us, and I leave them to make their own arrangements. Only the camel-drivers still travel all three on foot, for they have to lead the animals like tugs drawing a line of barges after them, and there is no need to pity them, for they are quite accustomed to it, and it is part of their occupation to go on foot. Mirza, the literate, is too grand a person to walk, and he sits on the top of a load jolting all day long. Avul Kasim is lulled to sleep by the regular movement and the ring of the bells, and seems as though he were in danger of losing his head, but he holds himself together, has a firm foothold to support him. There is no more talking, the landscape does not change its aspect, the train moves on slowly towards the margin of the desert.

Now the summit of Demavend shines white as chalk—the air in the higher layers is purer than near the earth's surface. Sixty-five camels are grazing in a slight hollow to the left of our road — a caravan is resting there. Hassar-guli is a very insignificant hamlet on the opposite side. The road is less and less worn, and is a couple of lighter paths in the yellow ground; we are nearing the place where it will thin out to a fine point and merge into the desert.

We pass on the left seven *siah-chader* or black tents, inhabited by *iliats* or nomads of Turkish or Persian origin. Once nomads of Arab race are said to have dwelt here, but they have moved up northwards to the Meshed road. The tents are like those of the Tanguts on Kuku-nor, black like them, but closed all round. The inmates are half-wild, ragged, and unkempt, but yet picturesque. They appear suspicious, and are not easy to approach. The women are not veiled and wear clothes that once were red. They are soon behind us with their poverty and their free roving life, which is better than the precarious riches that are acquired in Teheran.

Before us surges the desert, immense and fascinating, and we march onwards between the outermost reefs. Beyond the nearest hill to the right comes into sight the

Siah-kuh proper, as a faint, scarcely perceptible outline—we have still a long distance to traverse before we reach it. Our path branches out like a fork, and we follow the right prong which trends south-south-east. Here the ground is lumpy with knotted roots of steppe shrubs, and on the lee side some blown sand has collected after the gale of yesterday. It is the finest yellow sand which occurs in such small quantities that it is unable to lay a foundation for a dune; it will continue its wanderings if it does not here and there come upon small obstacles. Sometimes there is a meagre tuft of tamarisk on a larger lump just as in the outskirts of the sandy deserts of Eastern Turkestan.

Meanwhile we are approaching the very last hamlet of all, its huts, roofed with clay cupolas, grow ever more distinct, its yellowish-grey walls come in sight and a score of willows. The village was formerly called Kerim Khan after a man who died there a long time ago, but now it is generally known as Abbasabad; its owner is said to be Akbal-el-Dovleh in Teheran. A farsakh away to the south-west are seen the village and mound of Doasde-imam or the twelve Imams, and at a still nearer distance Mobarekiye. Yechabad is a village at the foot of a hill to the north.

Kerim Khan consists of 15 houses and has 40 inhabitants, and is the last outpost on the margin of the desert. It has 60 camels and 100 sheep, and the richest man is also the village elder or *ketkhoda*. In good years it produces 100 *kharvar* of wheat and barley, only a third as much as Kala-no, but this year the yield has only amounted to 20 *kharvar*. Of other produce only melons and green vegetables are grown. The water for irrigation is obtained from a *kanat* which starts from the village Hassar-guli.

The system of irrigation is very remarkable; and when one travels all day through a country which so nearly resembles a desert, one is astonished to find here and there villages with running water. The point where the head of the canal is situated, in this case Hassar-guli, of course lies a few feet at least higher than the fields of Kerim Khan (2644 feet); the *kanat* or underground tunnel or

60. Among Saxauls.

61. Camels drinking from a Canal in Kerim Khan.

canal slopes still more slowly and gradually than the surface of the ground. At Hassar-guli a vertical well is sunk, say 16 feet deep, and then a succession of similar wells is carried in as direct a line as possible to the terminus, the depth of the wells becoming gradually less, at the last less than three feet, and then the water flows out into a surface canal, which branches out to the tilled fields. When the row of wells is ready, their bottoms are connected by the almost horizontal tunnel in which the water collects before it flows slowly down to Kerim Khan. In the same way Hassar-guli derives its water-supply from a kanat which begins at Kala-no, a village with a kanat which has its head still farther to the north. Before the heavy work of excavating a kanat is commenced, from the trunk and branches of which a whole village is to draw sap and life, some test wells are sunk. If good water in sufficient quantity filters into the bottom of the first well that is sunk, then it is carried on by a horizontal conduit in the manner described above; such a kanat may also be reinforced by tributary kanats opening into it. The Persians are expert in irrigation works of this kind, which they construct without the slightest help from levelling instruments, though minimal differences of elevation and vanishing gradients are involved. The principal point is to make the water collected come to the surface at the right place; but the usual order of events is that a newly-laid-out kanat causes a village to spring up, and not the reverse. Jaje-rud's conduit ends at the village Khave, but sometimes, after heavy rain, the water flowing on the surface in scattered branches may reach Kerim Khan.

Meanwhile we encamp in the village, and our splendid camels are relieved of their heavy burdens. It is evident that the endurance of the camels has turned out very satisfactory; but they have not yet been tried in the fire, having performed only two short days' marches with two days of rest, besides several idle days before the start, during which they ate their fill of hay, straw, and loaves of barley, all mixed with cottonseed. Even if they had worked hard immediately before they came into my possession, they have had no trying days, and at present

they have not to go without water. I have already gained confidence in my riding camel; he is a large, strong, light brown beast, long-haired and shaggy now in winter time; he has a capital appetite, and when on the march he passes the most innocent little steppe shrub he tries to get a bite of it as he goes by. His guide, Gulam Hussein, leads him quietly and patiently, and never hurries so that the rope tightens round the muzzle. His action is very easy, and he sways much less than the other camels, as though he would, for my sake, endeavour to reduce as far as possible the swinging motion of his stride. I therefore enjoy the ride, and even if, during the first days, I am a little sore in the small of the back and the neck, that is of no consequence and soon passes off. One thing is very satisfactory, namely, that the Persians do not tie the leading rope to a pin thrust though the cartilage of the nose as the Turks do in Central Asia, but instead fasten it round the soft muzzle. The camels are, therefore, not tortured unnecessarily, and one is spared the sight of bleeding nostrils so common in Turkestan.

The *ketkhoda*, or elder of Kerim Khan, met us with the greatest civility, as indeed, was only to be expected, since I was accompanied by Cossacks of the Shah and also had written firmans to his subjects. He was an elderly man, and had a good knowledge of the country for some days' journey eastwards, so we at once called him to a consultation. There were four ways for us to choose from, and whichever way we took we should come, after four days, to a well with brackish water, named Tallhe. The first road passes through Baba Hamet, Cheshme-shah, Rafesh, Summek, and Tallhe. At Cheshme-shah is the best spring water in all the district, but the way is longer than the others. One of them runs for the most part through hills, past Eine-Reshid, Cheshme-zur, Ab-gulé, Cheshme-gur, and Tallhe, and is 22 farsakh long; this road winds in all directions, up and down and out and in, but it has one great advantage, namely, that water can be obtained at every camping-ground, certainly brackish but still drinkable. Yet another way leads through Baba Hamet, Gudar-taghi, Keilege, Shekker-ab, and Tallhe;

there is water at Keilege and Shekker-ab, but this route, passing partly through desert, partly through hills, is 27 farsakh long and is not to be recommended. The shortest way to Tallhe, 18 farsakh long, lies entirely in desert, and on its three or four days' march no water occurs.

We held a council of war, and all were of the same opinion as myself, that the desert route was the best—Mirza alone voted for the hilly road where there was water, but he was very disinclined to expose himself to unnecessary suffering. The Persian caravan guides preferred the level desert route for the sake of the camels; just now there was a caravan of 200 camels from Ispahan encamping at Kerim Khan, and it had chosen the desert route through Sefid-ab and Mugur in preference to the main road through Kashan and Kum; it halted at Mugur to feed the camels with cottonseed, and it was staying two days at Kerim Khan. As we came up the 200 camels were standing in a long row and drinking from the little canal of the village. These long-distance caravans always travel at night to give the camels an opportunity of grazing in the daytime. *Khar-i-shutur* or camel grass is a steppe plant which is said to grow on the skirts of the desert, and where it is plentiful the camels require no other food; this year it was poorer than usual, and therefore the camels of Kerim Khan were thin. The information given by the ketkhoda that antelopes and wild asses (*ahu* and *gur*) live in the hills before us seems to indicate that the country around cannot be quite sterile.

When the old man told me that the village owned sixty camels, the brilliant idea occurred to me to hire some of them to help us on our way for a few days, and carry hay and straw for our own animals. When the ketkhoda declared that he was willing to let us have five camels for the journey to Tallhe if he received 15 kran a day for each, I took him into my tent and we held a long palaver in the presence of Abbas Kuli Bek and Mirza. His demand was certainly exorbitant, for 30 tuman is half the cost of a large camel. To simplify matters I asked him how much he would charge altogether for five camels to Tallhe, and he replied without hesitation, "Nine tuman."

He cannot have rightly understood the difference between a kran and a tuman, but at any rate the bargain was decided to our mutual satisfaction, and he promised also to procure two kharvar of hay, which amounts to four camel loads, and would satisfy our needs for eight days. I would gladly have doubled both the supply and the number of hired camels, but we had to content ourselves with what we could obtain on the spot.

I tried in vain to get a dog to guard the baggage, but had to give it up, as there were only two dogs in Kerim Khan.

Pleased with our day's work, and with the prospects for the first desert marches, we retired to our tents as the sun, glowing red, sank in the west and shed a fading purple over the wretched mud cupolas of Kerim Khan, which had a few moments ago cast long straight shadows towards the desert. The night was beautifully clear and calm, the moon shone brilliantly, and its light penetrated through my thin tent. By nine o'clock the temperature was down to 19°, and if this weather continued we should have a good journey. Avul Kasim, who was sleepy in the daytime, wakened up at night and told stories which gave his comrades' laughing muscles no rest.

I suspected that we should not get under way on Sunday, January 7, and therefore was not at all surprised when Avul Kasim and the ketkhoda awakened me at half-past six, and proposed to spend the day in making preparations for the four days' journey through the desert. Very tired as I was, I approved of the proposal, and had no objection to sleep two hours more after I had read off the meteorological instruments. The minimum had been down to 9.1°, and at seven o'clock the thermometer stood not more than 2° higher. It therefore felt cold, the air was clear and still, all outlines were sharp, and only towards the desert the surface of the ground faded away in the far distance. Demavend was gilded by the rising sun, and gleamed like a freely floating balloon of purple. The camels lay tethered with two ropes and poked their noses contentedly into their chaff—they must surely have been satisfied after eating all night long.

The day of rest was very necessary, for we decided to try and procure a larger supply of hay and straw, which was to be brought from Kala-no and other villages in the neighbourhood, and could not arrive before evening. We should find the advantage of it later on, and so the day was not lost, for we had every prospect of soon finding ourselves in country where the soil yielded no nourishment for camels. Good sweet water was also fetched from a spring half a farsakh off, in two large *meshks* and four sheepskins swelled out like drum-skins, making two solid camels' loads.

As for myself I spent a large part of the day as a guest in the house of the ketkhoda, our nearest neighbour. The house is a low, long rectangle of mud, and over each room rises a cupola-shaped roof of sun-dried bricks, for here at the margin of the desert there is no timber to make a flat roof. This hive-shaped roof is characteristic of all the villages we shall visit farther east, and it affords a very practical solution of the problem of turning to account the most convenient building material to be found on the spot. Moreover, the thick vaulted clay roof has the great advantage of keeping the interior of the cottage cool during the dry and burning summer.

In the middle of the living-room, where the mistress was clearing up when I entered, stands a table a foot high covered by a cloth which hangs low down on all sides. Beneath the table the ground is digged out, and in the hollow stands a mangal with burning fuel. The people take their seats round the table, draw the cloth over their knees and tuck it in at the sides, and thus all the lower part of the body is kept nice and warm while they sit and eat, occupy themselves with some handiwork, talk, or let their beards grow grey in idleness.

Under a broken cupola a kitchen department was installed, and here stood an elderly woman baking bread. She kneaded a lump of dough, laid it on a flat, round stone, sprinkled dry flour over it and rolled out the lump with a cylindrical roller till the dough was as thin as felt. By deft manipulations in the air, patting the sheet of dough with the hands and roller, she reduced it to the thinness

of paper, and clapped it quickly on to an iron girdle laid over burning dung. The next sheet was laid on the former, and thus only the outer side of each sheet is baked. The worthy woman was baking for us, and at night we had two sacksful of bread.

The old man kept his valuables in a small room called the *sanduk-khaneh* or chest-house. A mud wall was the family's sheep-pen (*gusfend-khaneh*), and outside lay a store of steppe shrubs and tamarisk for fuel. Two wooden rollers, round which circular iron blades, sharp as knives, are fixed, revolve in a frame like a pair of millstones, and are used to tear straw to bits.

After I had been sitting two hours on a mealsack outside the old man's dwelling, drawing him, two other men and some women and girls came up. The latter were dressed in red light garments, with a kerchief on the head, and the feet bare or in skimpy wooden shoes. Two of them were quite handsome to my eyes, but perhaps that was because female faces are seldom seen in this land of veils. The hair is black, not curly but rather parted into locks and tresses, the eyes are dark brown, almost black, and the long lashes which veil them make them look still darker. White clean teeth peep out between rosy red lips, the hands are coarsened with hard work, and the feet are dreadfully dirty, as indeed are all their persons. Some, indeed, were shy, but their eyes flashed like fire, and though they restrained their merriment their glances were full of roguishness. They gradually collected in such numbers round my open-air perch that I could not finish the portraits before twilight put an end to my work. Greybeards and men stood around and must have made some very smart remarks to judge by the liveliness of the others. But it was delightful to observe these young, fresh, brown-skinned plants of the wilderness, which flourish in the niggard earth among tamarisk and camel grass. Their intellectual horizon is less extensive than the terrestrial, but they unconcernedly take things as they come. They regarded me with the greatest curiosity, and never took their eyes off my pencil as long as it was in motion. If some new victim, whom I chose from the

62. Woman of Kerim Khan.

63. Girl of Kerim Khan.

crowd, hesitated to sit as a model, she was pushed forwards by her bustling kinsfolk to the mealsack which lay opposite mine. We were still near Teheran, where all the women wear veils, but here none thinks of hiding her face. I seemed to have returned to primitive humanity, and would gladly have stayed a day longer among these simple, unsophisticated Persian peasants.

So the day passed, and I went back to the camp where the men were engaged in tightening up and binding the water sacks. Elburz towered above the earth more magnificent than ever, for the cold night had thoroughly purified the air. The whole range stood out in all its details; the shadows in the fissures between the spurs and in the higher troughs of the valleys were dark blue with sharp contours, while the snowfields, where they were caught by the sun, glowed with the purest pale ruby tints, and a faint reflexion from the sunset still adorned the mighty crest long after the whole plain around us lay in shadow, and was fanned by the scarcely perceptible cool breeze which heralds in the night. And Demavend's peak is the last point within sight which bids farewell to the flying sun.

The ridge of the Twelve Imams to the south now presents a dark and boldly drawn profile, and Siah-kuh is more conspicuous than yesterday. Merre and Herrat are the names of the two small isolated elevations in the west, and Kuh-i-nemek, or salt peak, the small height already seen from Veramin, appears west-south-west, while Kuh-i-gech is the nearest elevation to the north. But beyond the last reefs south-east and east-south-east lies the desert, endless and ominous, waiting for us; and when I ask our host what he calls the great desert, he answers only *biaban*, a word which means *bi-ab*, without water, and therefore desert in general.

CHAPTER XIX

A SNOWSTORM IN THE DESERT

We had been sleeping two hours when the two dogs of the village began to bark furiously in the middle of the night, and soon after the ketkhoda returned from his mission and aroused my men. He wished to deliver at once the supply of *kah* or chaff he had succeeded in collecting in the neighbouring villages and had brought with him in network bags or sacks. We now had four kharvar of straw at $3\frac{1}{2}$ tuman, and they made eight camel loads. And as the water-supply required two camels the old man promised to place ten of his best camels at our disposal for 18 tuman. He received at once 25 tuman in silver, for he had no faith in Persian notes, and was to be paid the other 13 tuman due to him on our arrival at Tallhe. He had also obtained a large light yellow dog, which we called Nevengk, and he made a terrible row all night long, trying to tear himself loose from the boxes to which he was fastened.

On the morning of January 8 the sky was covered with dense clouds, and it felt cold and chilly after 13.8° in the night. I kept myself comfortable near the dying embers of the camp fire while the caravan was being loaded up, and this work took a longer time than usual, owing to the sacks of water and straw. The four small sheepskins had not lost a drop of their water in the night—the ground beneath them was quite dry; but only half was left in the two large *meshk*, and they lay in a bed of mud. They were, therefore, filled again from the canal, and hoisted with the closely tied opening uppermost on to

our great black camel stallion, which also carried a pair of small sacks. He was to-day in a vile temper, and so obstinate that the men could hardly manage him; he was so bad that he spat out a mess of saliva and half-chewed straw over Habibullah, who held him while the other men loaded him. The other two sacks were put on another camel, and as a precaution we decided to fill six more sheepskins with water from the canal of Kerim Khan, which was certainly brackish and nauseous, and would not be improved by being churned up in the skin for some days, but we might be glad of it some time. These sacks, which were carried by two of the hired camels, were filled at the moment of starting.

We were ready at last, and the caravan now looked imposing, as it contained twenty-four camels, which left the buff-coloured courtyards and poor inhabitants of Kerim Khan and directed their course towards the sharply outlined ridge and ruddy detritus cone of Doasde-imam. Demavend also was plainly visible in spite of the clouds.

Several of the hired camels are females, and make our powerful stallions excited; they gurgle softly and sadly, the froth hangs round their lips and drops in flakes of white foam; they grind their teeth, and their eyes glitter with passion at the thought of the female company with them.

The small brackish canal of the village soon comes to an end, and the last of its water spreads over the farthest fields and seeps into the dry earth uselessly. At one place the canal has poured over into a small pool, which forces us a little out of the way. But then we are again in desert land, scantily begrown with a steppe plant called *eshnan*. Here and there the ground consists of quite level expanses of clay broken into slightly concave flakes; these are due to the rain which fell two months ago, and washed the fine clay together into depressions imperceptible to the eye.

A little later a raw cold south-easterly wind springs up, and I prefer to walk a while to keep myself warm. I keep by the side of the great black stallion, and watch the water dropping from his sacks, and his saddle-cloth

becoming coated with ice and icicles a foot long hanging from his sides and constantly lengthening. Some of them adhere to the leaks in the sacks, which thereby are stopped to a certain degree, for the dropping gradually becomes less frequent. Under other circumstances it would have been sad to see the sap of life running away drop by drop and moistening the dry ground. Now I take the matter calmly, for we have only four days' journey to a place where we are certain to find water.

We approach the hill of the Twelve Imams obliquely, and direct our course to its most projecting point. The middle summit of the little ridge is called Kuh-lenk or lame hill, probably because its eastern slope is much steeper than the western. A score of camels are grazing on the steppe to the right of our route, but the forage is scanty, and the dry shrubs grow 15 or 30 feet from one another.

Quietly and solemnly our heavy train moves along on its way to the desert. The beats of the bells, regulated by the heavy stride of the camels, combine into a monotonous melody such as I heard exactly ten years ago in the woods of the Keriya-darya. Now it seems to ring to the words *pambedaneh-kah-kah* ("cottonseed and straw, straw"), and as if the metal of the bells expressed a longing for rest and food. So they rang in a time which seemed dim antiquity to Cambyses; and while kingdoms flourished and decayed, religions and languages changed as in a kaleidoscope, the caravan bells rang a low continual accompaniment to life in the desert regions of Western Asia.

A darker belt of clouds floats in front of us with threatening aspect, draws nearer, and soon hides Demavend and all the Elburz range, but under the heavy curtains patches of snowfields still peep out. In the morning it had seemed as though there were snow in the air, and now, at ten o'clock, the first shower of round flakes seems to be advancing. Elburz vanishes altogether, the last village and the hills to the west are wiped out; only due east is seen a small isolated knoll called Kuh-i-gugird, or sulphur hill, like a last rock rising above the flat horizon of the desert sea. We can see the snow eddies sweep

64. Kerim Khan.

65. Our Straw-laden Camels.

away bit after bit of the field of vision, and wait till it is the turn of our plain.

The ground is excellent—hard, and slightly covered with pebbles, the outermost sweepings from the flat cones of detritus of the higher hills which we are skirting, and only in the neighbourhood of weathered hills can the ground be so firm; even after pouring rain it would not be slippery. The road has almost come to an end, only a light yellow strip in the grey rubbish shows that we are following a track.

Now the snow clouds are over the plain, and come rolling up like mist from the sea. Siah-kuh has disappeared, but a faint outline of the higher hills is still discernible. And then it begins to snow in small dense flakes, and the fall increases, without, however, the ground becoming white or wet; dust still rises behind the camels, for below the gravel there is loose loam. The shrubs now stand 10 to 15 feet apart, and soon even the last path disappears; the country is now completely level, like the surface of the sea; not a sign of an undulation, no furrows or subsidences. The snow still increases, and the ground becomes slightly moist. It is quite calm. Now the hills to the south also vanish, and the caravan is the only thing to be seen; the foremost camels in the long procession disappear like ghosts in the mist. At a place where dry shrubs grow more freely than elsewhere, we halt a while to collect a good supply for fuel; four large heaps are tied together with ropes and hoisted on two of the camels. My camel has always to lie down before I can scramble on to his back, and this time he gets up quick and elastic as a spring before I am in position, and consequently I am flung over his tail, come down head foremost, and strike Mirza, who falls undermost. However, he gets up uninjured after his crushing, and takes the accident calmly, though the other men laugh at the double fall. A little farther on his camel slips on the moist clay, and comes down slap, and the rider rolls over twice to one side.

This day the temperature never rose above freezing-point, and even at one o'clock was 28·8°, and the snow fell in such quantities that it was quite dusk in the middle of

the day. At first the snow remained lying only round the shrubs, but afterwards the white mantle spread more and more, and at last only stones and plants rose above it like black spots. And gradually as time passed the mantle of snow became thicker, and now we could very well have done without water. My friend Houtum-Schindler, who predicted snow in January, was therefore right, and this snowfall was as heavy as any at home in Sweden. I sat as though snowed up on my camel, and the unexpected covering assisted in keeping in the warmth; but as I had constantly to use my hands, the map sheet became moist and flabby, and the pockets of my ulster were filled with wet snow.

Our course now follows the foot of the hills on the right, where the lowest slopes are just perceptible through the mist, and we cross two shallow erosion furrows descending from them. After rounding the small projection we saw from Kerim Khan, we enter quite an archipelago of scattered isolated mounds. A small mound crops up on the left, followed by another not larger than an upturned boat, while a third forms a regular ridge 15 to 18 feet high. The vegetation is very scanty. The snow lies so deep that the camels no longer leave a dark trail behind them; the track looks white amid the whiteness, but the footprints are dark and wet. More hillocks are dimly seen to the right, and sometimes we catch a glimpse of other mounds behind; but practically the view is all veiled by the falling snow, and the details cannot be laid down on a map. Most of the erosion furrows are extremely short and are directed northwards.

The caravan becomes whiter, the camels are powdered over, and their loads are covered with a layer of snow close and thick as cotton, and now and again a lump falls off. The snow does not lie long on the dry ground, evaporating above and melting underneath, but when the snowfall reaches its height at three o'clock, the ground soon becomes a continuous sheet of white owing to the under layer already formed. Now the illumination is very dim and diffused, and we are in the midst of a winter of a northern type rather than of one of Persia's light yellow deserts.

The clang of the bells seems to wake an echo from the densely falling snow, it rings so shrilly its everlasting *pambedaneh-kah-kah.*

It begins to blow gently from the south-east, and the snow which is partially melted on my clothes freezes into a crackling cuirass. On the windward side the camels are covered with snowflakes which freeze hard on their wool; fresh snow finds an easier hold, and the animals look strange, white amidst the white perfectly level landscape. Icicles two feet long hang down from the dark stallion, and as he is, besides, buried in snow he has all the appearance of a winter camel, a monument of snow and ice.

An erosion furrow runs eastwards, and we cross smaller tributary furrows a foot in depth. We have covered 15½ miles when the ketkhoda halts and says that we are at Baba Hamet (2733 feet), where there is good grazing for camels. And, frozen as we are, we have no objection to dismount, shake the snow off our clothes, and light a huge fire of dry crackly steppe shrubs. The snow is cleared with a wooden shovel from the spot where the Cossacks set up my tent, while Mirza shakes the snow from my rugs and cushions and furnishes the tent in the usual style, and so I am at home again. There is talking, and giving of orders all about the camp, and the men hasten to raise a shelter over their heads after turning out the camels to graze, but dusk is near and then our humpbacked bearers are collected round the first sacks of chopped straw. I hear the grease fizzling in the frying-pan for my dinner, and the samovar sings while the snow beats with a swishing sound against the tent and weighs down its roof.

At night I make a round of the camp with Abbas as guide. Our men have erected a ring-fence of the heavy baggage, within which they mean to sleep under their cloaks, round a blazing fire. Outside, the camels are closely packed together in two circles to keep one another warm, and in their midst straw is piled up on a piece of sacking. They are already covered with snow, which also helps to keep them warm. The ketkhoda and his servants have their own ring-fence, where they sit with their mantles over their heads smoking pipes. The other

men make themselves comfortable in their large tent, and go now and then to see their neighbours and talk a while by their fires.

After a short interval it begins to snow hard again at nine o'clock; but still the moon is seen clearly and plainly, though not bright, and it throws slight shadows on the snow, and stars of the first magnitude shine from the zenith. The ketkhoda says that snow sometimes accumulates to a depth of 24 to 28 inches, and that sometimes the sheep are decimated by it. Under such circumstances all traffic is stopped. To-day's snowfall is the first in the year, and has come at the usual time; for forty days more falls may be expected, but it seldom happens that it snows more than a couple of days at a time, and exceedingly seldom for a week or ten days. Snow no heavier than this cannot form mud on the clayey roads; but if a warm wind passes over the new-fallen snow and frost sets in after, a crust is made which prevents caravans from moving. Snow comes only with a south-easterly wind; if it blows from the opposite direction the sky is clear, though one would rather expect the reverse, since the south-east wind passes over dry desert regions, whereas the north-west wind comes from the damp Armenia and the Black Sea. Our informant believes that to-day's snowfall will not have extended farther south than Ardekan (near Yezd), and says that Tebbes is considered to lie in the *germsir*, or the warm country, where it scarcely ever snows. He advises us to remain where we are if it snows heavily at night and in the morning, and he frightens my men by telling them that if we are overtaken by a deep snowfall in the *biaban* we shall be done for, for in deep snow the camels cannot travel without being tired out. We shall see. Such a snowfall as to-day's I never expected in this part of the country, and it is an exciting incident which only adds to the feeling of adventure in the desert journey before us. We shall have no scarcity of water if this weather continues. If it has snowed over the salt deserts the whole land will be converted into a slough where the caravan will run a risk of being drowned.

On the day's route there are no points worth recording;

all the names are connected with springs and hills, as, for example, Chesme-gul or Chuk-ab ("flower-spring" and "dropping water"), the latter, because the water trickles and drops from a small valley. Nerekher-kuh and Baba Hamet are hills in our immediate neighbourhood.

The snow-covering on my tent increases the warmth within, and I sit with the tent flap wide open and watch the large feathery flakes fall. The men who lie outside are already buried in snow, but they sleep well, trying who can snore the loudest. Otherwise the night is still, only the snow swishing gently; the sheet on the tent increases in thickness, melts underneath from the warmth of the fire in the mangal, and freezes again till the tent cloth becomes as hard and brittle as a biscuit. Our new travelling companion, the yellow dog, is still very reserved and bad-tempered, but he seems to have resolved to take life philosophically.

When I awoke in the morning it felt bitterly cold after a temperature down to 7°, and a thick mist lay over the dreary steppe. But it had already thinned at nine o'clock, and only a wisp as small as a sword-blade floated to the east. After a cold night the day broke brilliantly clear, and the sunshine fell on the facets of the thousands of snow crystals, producing a dazzling reflexion from the white ground. Without dark glasses the excessive light would have been unbearable. Not a breath of air could be felt; the smoke rose straight up from the camp-fires. The camels stood out exceedingly sharply against the pure white background. The snow covered all the country in a thick layer, and patches hung on all the shrubs like tufts of cotton-wool on a Christmas tree. The whole country was wintry and frozen, and the cold of night still lingered on the ground.

Our water sacks were frozen hard as stone, and so the leaky ones were thoroughly closed up, but this natural method of sealing up is risky, for cracks may easily be caused by the shaking on the camels' backs. My tent was frozen so hard that it could easily have stood by itself without pole or stay, and the cloth crackled when the Cossacks rolled it up for packing. The men who slept

out of doors had had a cool night, but still they were brisk and merry in the morning. One would think that their life with the camels must be hard and toilsome, especially considering the trifling pay they ask; but they are contented, make their way through all kinds of weather, wrap themselves in their thick, sack-like cloaks, and sleep through cold and snow. Immediately they wake, before the day breaks, they hasten to light a fire, and restore their circulation in ten minutes.

To the north something dark hovers above the ground, but we cannot make out whether it is cloud or an indistinct hill. The crest of Elburz, however, is sharp and clear, and the cone of Demavend, somewhat dimmer than before, owing to the greater distance, seems to be freshly sprinkled, and to present a more connected sheet of white than usual. But at half-past nine the summit disappears behind the mist, which again collects in the north.

By the time we set out the day has become blazing hot, and as we travel straight towards the sun I feel as though I were sitting in some kind of insolation bath. I sit longing for the slightest breeze cooled by passing over snow, and raise my cap to cool my forehead. According to a Persian saying, Iran has seven climates; but this peculiarity may be ascribed to the desert in the words, *biaban heft klim dared*; for during the days we have passed on its outskirts we have had the warmth of spring, calm and bare ground, winter cold, a dust-storm, and a fall of snow, one after the other. And now the weather changes again in five minutes; the mist draws together and comes sweeping over the desert. Siah-kuh, lately showing so finely, disappears, together with all the other isolated hills; the heat of the sun abates, and this it is, indeed, which has drawn up the light clouds of vapour from the surface of the ground. They grow thicker, and the ketkhoda, who with his camels forms the vanguard, quite disappears in the fog, and we can only follow his track in the snow. The glittering play of light on the snow-facets has ceased, and the blue of heaven has changed to a greyish hue. The snow which still lay in the morning on the camels and their loads has gone up in steam, and lies only in the

66. A Short Rest.

shade. The snow on the ground is still crisp and dry, and the camels' feet do not slip.

It is eleven o'clock, the mist thins, and it becomes as hot as on the pass Kotel-i-dukhter in Southern Persia when I crossed it many years ago on May Day. The bells clang monotonously; I have one of them close in front of me all day long. Now and then it is silent for a moment when some irregularity in the camel's gait neutralizes the swing of the clapper. The men are stupid and silent, but now and then a pipe is lighted, and goes the round. The snow lies cold and white as a winding-sheet, and becomes thinner as the hours go by. Meagre bushes grow all along the route, called *bote* and *terkh*, the latter hard as wood and a capital fuel. The steppe stretches out in all directions uniform and level as a floor, and when we pass an insignificant undulation running from NNE. to SSW. we notice it as an unusual interruption, though it is not higher than the smallest ripple on the sea.

The mist comes and goes, and performs the most singular manœuvres over the ground. To the south and south-east it rolls itself up into a bolster, if possible whiter than the snow, and over its remarkably clearly defined upper edge rises the summit of Siah-kuh like an iceberg in a frozen sea. To the north the fog seems to turn into bluish violet, cloud-like pillows and mattresses spread over the earth, and above it are seen parts of the snowy crest of Elburz.

At mid-day we leave Kole-hauz on the right and have Kuh-khar on the north and Telle-bur on the south. As the day passes and the farther we march south-east, the more forcibly has the sun accomplished its work of denudation, and the more frequently occur patches of fine detritus on the bare ground. At the edges the snow melts perceptibly and forms small pools from which the men drink. I, too, enjoy a drink of ice-cold water from the clay jug which is tied by a string through its narrow ear to the camel's flank. A small herd of gazelles is feeding in front of us. Hussein Ali stalks them carefully with his gun ready, but the shy animals scent danger and fly off like the wind.

Now half the ground is bare, and only shallow hollows

are still filled with compact snow. At one o'clock, when the temperature is 35.8°, only a third of the snow sheet is left, and this snow is damp and forms puddles in the foot-prints of the camels. If the thaw continues at this rate it will not be long before we march over entirely bare ground. Now all Siah-kuh is visible to the south with its summits, crests, and ramifications, and it is here that the formerly mentioned mountain road runs. To the right of the mountain no inequality breaks the straight line of the horizon; the land is open as far as the eye can see towards the south-west.

We cross a track, and in the middle of it a stone cairn is erected. It is scarcely more worn than the path we are following, and it runs between Semnan and Kashan, and also touches Baba Hamet and Siah-kuh. For a distance of 5 farsakh it crosses, it seems, a belt of *kevir* or salt desert, and to prevent the animals from sinking in the ground, treacherous after rain, a causeway of stone, called Raferkh, was laid down in the time of Shah Abbas. From two small outlying hamlets, Kahek and Sennart, it is reckoned a *mensil* or day's journey to the isolated hill Eine-reshid, which shows itself to the right beyond Siah-kuh. On the way thither there is no water for 8 farsakh, and caravans usually cover this stretch at one march in the night. This desert route is much frequented at certain seasons of the year.

All the water running in the rainy seasons down the small furrows we cross collects into a bed visible to the north, which belongs to the same hydrographic system as the three following streams: Rudkhaneh-gulabad, Rudkhaneh-i-gollab, and a stream from Khar in the neighbourhood of Kishlak; they combine to form a river which flows eastwards past Kuh-i-gugird, which appears in the distance, and then continues its course to the great *kevir* or salt desert.

At two o'clock small insignificant patches of snow lay only in sheltered hollows and under bushes which now grow more sparsely than ever. The men begin to think of making a camp, and ask me where I wish to pass the night. I let the matter rest a while and order a halt in a steppe

tract called Chellgadir (2589 feet). From here we command the following points: to the south-east is seen Tallhe; from S. 35° E. to S. 63° W. stretches the outline of Siah-kuh, the eastern part of which is called Lekkau (properly Lek-ab), while Chihil-sengu, Shur-ab-i-madmisu, Ab-gulle, and Cheshme-gur are springs within this district. N. 83° E. rises Kuh-i-gugird, and S. 82° E. is situated a well called Cha-mishmess by a small projection which was visible in front of us during the latter half of the day. N. 49° E. a small white point is conspicuous in the plain, said to be a ruin called Pole-siah-shikesse.

Near this day's camp we meet a caravan, its 15 camels carrying dry steppe shrubs from the Tallhe district to be used as fuel. It has just begun its march, and will go all night long and morning in one stage to Kerim Khan, after having travelled all the previous night. We ourselves have travelled $15\frac{3}{4}$ miles.

CHAPTER XX

DESERT MIST

A MIST, denser than before, lies spread over the desert on the morning of January 10, and not the slightest gleam of the sun is able to penetrate the thick layer. Murkiness prevails during the greater part of the day, and all objects 200 yards away are invisible. Of Elburz, Siah-kuh, and the other smaller heights in the fringe of rocks between which we steer out to the open sea of the desert, we have not a glimpse, and of course I am unable to take bearings of their summits for my map. The weather is agreeable for travelling, and dark glasses are not necessary; at present the path is excellent, and only here and there is a patch of snow left in sheltered places. All the shrubs and stalks, however, are decked, after 9.2° of frost in the night, with innumerably long crystals of hoar-frost, which make the ground look as though it were sprinkled with white. At two o'clock a change in the weather sets in; it begins to blow from the north, the mist thins and disappears entirely at four o'clock, and finally only a few clouds hover over the horizon, obstinately hiding Elburz and Siah-kuh, and the pretty rime evaporates and melts away before the beams of the sun.

The loading of the camels is accomplished more quickly this day, and we set out in good time for a march of 15 miles in a direction S. 65° E. Immediately beyond the camp the snow still remains for some reason, and the hoar-frost falls from the shrubs like fine down as the camels brush against them. The caravan moves at a quicker pace than usual, as may be known from the loud, hurried

67. A "Sengab," literally "Stone-water," or Rain-water Pool.

68. My Riding Camel on the extreme left.

ringing of the bells; the ground is splendid, there is not the slightest obstacle in the way, but one feels as if one were in a sack when this detestable fog hides all the view. Whenever we cross a small erosion furrow it runs northwards—in this direction the land falls to some projecting part of the Kevir, though the ground seems perfectly level.

During the early hours of the march I usually go on foot for the sake of exercise, and though the camel's gait seems so staid and slow, still it does not do to drag one's legs along—one has to take long steps in order to keep up with them. And after a walk it is pleasant to sit up in the soft birdcage on the back of my powerful bearer. The first hours of the swinging movement pass quickly, but afterwards more slowly, and one begins at length to long for the camp, and is seldom annoyed when the guide says that we have reached the camping-ground.

The dog, Nevengk, is now quite at home, and is reconciled to his mode of life, owing to the respectful, almost flattering attention he meets with in all parts of the camp. He runs loose and keeps near the first camel, and he wags his tail whenever one takes the least notice of him. At the camping-ground he performs the duties of a vigilant watchdog, and thereby soon gains a certain popularity in our wandering party. He has very thick and luxuriant fur, which is useful in the cold of winter, but the time will come when he will suffer severely in the heat.

An old camel stallion, of which I had some suspicion in Teheran, showed signs of exhaustion, and could not bear any other burden but a rider. The two Cossacks rode him in turns, but Hussein Ali got the lion's share, for Abbas Kuli Bek was extremely anxious that his young comrade should not over-exert himself in any way.

Habibullah cannot help being a rogue. He delights in finding a pretext to quarrel with the other men, and his nose slashed with a knife is a sign of some old squabble. After he has walked an hour he stops, makes the leading camel kneel down by tugging hard at his muzzle with the rope, and then rides to the camp. Still he does his work well, and does not allow the pace to slacken in the least. Among the camels he is in his element—moves, jumps,

and slips among them like a dolphin, and does not move an eyebrow when they spit right in his face. They are like lambs in his hands, and understand him immediately when he hisses like a snake, clicks with his tongue, whistles and gesticulates. It is no use for Avul Kasim to assume airs with Habibullah, for he catches it hot and is completely cowed. The good Kasim, who was engaged first and had the work of equipping the caravan, had expected to have some control over the other men, but he could not obtain it, and his pretensions were not supported by a firman from me. Mirza is secretary, and therefore considers that he is under no one's orders but mine; and he is always present when the geographical names for the day are noted down or when I consult with the ketkhoda about the route. Seeing also that the Cossacks take their orders from me, and the caravan men have only to attend to their charges, Avul Kasim's plan has entirely failed, and he goes about with the air of a great man whose merits are not appreciated. In Central Asia and Tibet a caravan leader is always necessary to keep order among the other men, but in Persia I am my own caravan-bashi, and everything goes on smoothly without any friction to speak of.

This is now the third day that the camels have not drunk a drop of water, but they show no sign of thirst, and when we halt at a large pool of melted snow they hardly do more than look at it. They are quiet, breathe gently and deliberately, and let their solemn imperious glances wander over the desolate steppe, which stretches before us day after day, without the least sign of anxiety. They seem to be unaffected by the length of the way, by the sterility of the wilderness, and by thirst, and submit to their fate with supreme indifference. Whether the march be long or short, the loads heavy or light, the camels follow their leader patiently and without complaint. They are wonderful animals, and it is good to be in their company. I never tire of watching them and observing their deliberate movements. I constantly discover new traits, and find them very picturesque, and quite in their place in this dreary, monotonous country.

We were now in a district where all the snow had disappeared, leaving only small pools behind, and had we possessed a pump we would have emptied them and thrown away the wretched water we carried in the skin bags. For in some of these the water was brown, and in others had a suspicious colour as if it were mixed with ink. It had an unpleasant taste, somewhat like that of rancid oil, and we drank it with strong tea, plenty of sugar, and ice-cold, swallowing a cupful at a gulp, then breathed with open mouth and instantly lighted a cigarette. But we do not mind, and in consequence of the high humidity of the air we have not much thirst. It may be worse later on if we lose ourselves in the great desert.

It is twelve o'clock; the mist is just as thick, we are always at the centre of the same small spot of earth where the horizon is lost in the fog. There is no change; we march over the same steppe with its thin carpet of gravel, with the same shallow furrows now pointing more to the north-east, probably turning in their lower stretches eastwards towards the Kevir. The track is plain, for here many caravans have passed, if for no other object than to collect fuel for the villages and Teheran. No steppe shrubs grow on the path itself, which is recognizable as a brown strip without the patches of rime which occur everywhere else. We march on to the sound of the bells, south-eastwards, always surrounded by an impenetrable wall of mist; one mile after another is traversed, and one feels like a squirrel in its cage. Hoar-frost accumulates on all the exposed hair of the camels till they look spotted all over.

After three hours' march a series of very low insignificant hillocks come into sight on the right hand. Between some of them, 10 to 15 feet high, an erosion channel winds from south-west to north-east, and this place is called Summek or Sumbek. Some snow remains on the north sides of the mounds. About a farsakh to the north is Kole-hauz-i-Summek, with a road dating from the time of Shah Abbas, which is said to pass the camping-grounds Sefid-ab, Germ-ab, Moghar, Shur-gusun, Bagh-rabat, and Habibabad before it reaches Shahr-i-Isfahun,

as Shah Abbas's capital, Ispahan, is called. The road seems to be no longer used.

A thin sheet of snow also remains in a deeply cut erosion furrow running N. 70° E. We are now come into more diversified country, but often interspersed with flat steppe. To the right stand the last outposts of Siah-kuh, some low mounds. The track crosses a whole series of shallow broad channels, and in their muddy bottoms still remain tiny runnels made by streaming water, as though a considerable flood had swept over this district after very heavy rain.

Now the mist thins and the curtain rises upon the panorama around us. Only the lofty mountains in the north are still hidden, and above us float heavy masses of cloud, just as though a curtain had been rolled up and folded together above our heads. The dreary track we follow divides, one branch leading us south-eastwards to Tallhe, the other continuing eastwards to Sar-i-cha-i-mishmess, Sar-i-cha-i-ghargara, Kuh-utek, and Cheshme-dosun, where fresh water occurs. It is said to be three *mensil* or days' journey to Kuh-utek, a small isolated hill which is now faintly seen above the horizon due east.

Our road runs along a broad flat furrow with an imperceptible rise, past a red irregular ridge called Takta-arus-paru. The hills in this country are composed entirely of clay and sand, soft material, and their form indicates erosion by wind and water; they are, therefore, to a great extent secondary formations. In a last broad and open furrow grow bushes of saxaul as high as 6 feet. The Persians call it *tagh*, and as it yields an excellent fuel we halt among it in a place for which our old guide knows no name; he calls the place simply *mian-shur* or "among salt wastes," and on the map I mark it as Camp 5, counting from Veramin. The height is only 2477 feet.

As we came to a halt the afternoon sun flooded the dreary steppe with a purple light, and while the other men put the camp in order the ketkhoda gave an account of all he knew. He pointed first S. 38° E., where the highest point of Tallhe was visible, the goal of our next day's march. Talkhau, properly Talkh-ab, is a hill to the

east, and S. 1° W. is seen another, at the foot of which the lately mentioned spring Sefid-ab is situated. To the south stands Chell-godar, with Jede-i-chellgodar at its foot. Between S. 42° W. and N. 87° W. extends with great distinctness the jagged outline of Siah-kuh, a small group standing quite alone, but larger than the other elevations around us. Of all the Elburz range only the very top of Demavend is visible, just rising above the dense veil of clouds N. 16½° W.

After heavy spring rains the water drains from the Siah-kuh and the other hills into the channels we crossed to-day, collects into the bed we saw yesterday, and so flows on to Kuh-i-gugird. The rain-water from Tallhe also flows in the same direction, but of the country lying beyond Kuh-i-nakshir, two days' journey from Tallhe, our informant knew nothing.

The first thing done, as soon as we come to a halt, is that the Cossacks and Mirza set up my tent and furnish it with bed, chests, and carpet. Then they set up their own tent, while Avul Kasim lights a fire, and as soon as it begins to burn heats the samovar. Now that there is no snow the camel-drivers put up with a semicircular fence of boxes and provision sacks, with the convex side turned towards the wind. Our camels always lie down in two rings, so that each set of seven can eat from the same heap of chaff mixed with cottonseed, but the ketkhoda and his servants have hit on a new plan this evening. The straw sacks are placed in a semicircle to windward, and the circle is completed by the ten camels; there the men sit drinking tea by the evening fire, and at the same time can keep an eye on their charges, which contribute no little to maintaining the warmth. At night we all enjoy grand fires, and great piles of dry stems and twigs of *tagh* are collected between the tents. The fires crackle and sparkle delightfully, and large bright flames throw their light over this silent waste where there is no living creature but ourselves. Yellow as the flames, the full moon rises over the dark horizon of the steppe, and enhances the charm of this lonely camp scene. It is now so light that we might very well travel by night, as the ketkhoda has

proposed; but I avoid night marches unless they are absolutely indispensable. The time may come when we shall have to travel during the hours of darkness.

The people in Kerim Khan and the villages around come again and again to the neighbourhood of Camp 5, the nearest place where saxaul grows in large quantities. They reject twigs and green branches, and take only large stems useful as wood, tie them up like bundles of asparagus, and lay two such faggots upright on each camel; it was such a caravan we saw yesterday. They keep little for their own use, carrying most of it to Teheran, where the usual price is 5 tuman for a kharvar, or $2\frac{1}{2}$ tuman for a camel's load. The price may occasionally rise to 3 tuman or fall to 2, according to the season and the demand. Wood, then, is very dear, but the profit is small; for the men cannot depend on finding grazing in the capital or its environs, and have to buy straw, hay, and cottonseed for the camels, and there is little or no chance of hiring their animals for transport on the journey back to Kerim Khan. When our friend the ketkhoda, after his engagement with us was ended, returned to his village, he intended to load all his ten camels with wood, and, after resting a few days in Kerim Khan, go on to Teheran. The journey would be profitable to him, because he would have transport work both ways.

Towards morning, when the mist again lowered over the steppe, two wild asses strayed into the vicinity of our camp; but as soon as they got wind of us, they set off at a rapid pace south-eastwards, as their spoor showed. Their spoor was larger than that of tame asses. As I had formerly, in the Lop desert, desired to see wild camels, so I now hoped daily to get a sight of the Persian wild asses, and to obtain a specimen for the skeleton and skin. The ketkhoda said that they were to be found all over the desert, except in the Kevir, and as the whole of Eastern Persia is a desert broken only here and there by a strip of steppe, we had plenty of time to get a sight of this singular animal, which skims lightly and gracefully as a spirit over the sterile ground.

69. An Open Reservoir of Rain-water.

70. Encamping.

And then again we started for another day's journey towards the heart of the desert. At first the ground was troublesome, consisting of a hard thin crust of red clay mud resting on soft loose matter in which the camels sank, and only in the erosion furrows, washed by running water, was the soil firm. We steered south-south-east, and entered the mouth of a clearly marked dell enclosed between terraces and mounds 30 feet high. It was like passing through a tunnel; close beside us rose the red barren banks of clay, and above us lay the dark heavy mist, covering us like a roof. At the very entrance of the dell we noticed that a considerable flood must have poured down recently, and we had not gone far before we came to a small creek of almost stagnant water, so bitter that not a single camel would touch it. Even at the last extremity men cannot put up with such water; they simply cannot swallow it. We had come into a treacherous, infernal hole.

For the rest the bed consisted of alternate strips and belts of mud and coarse sand. Where the latter is wet, it gives way and is very treacherous and dangerous. The Persians warned us, and when a camel sank in with his hind legs, we thought it advisable to leave this singular hollow and ascend the mounds on the right side. Here occurs a new bush called *hich*, with green upright needles. The saxaul has gone, but it will reappear here and there farther on. There is no trail in the dell, for all traces have been swept away by the spring flood. As, besides, we are enveloped in this annoying mist, it is often difficult for experienced travellers to find the way, and even our *bellad* or guide, the ketkhoda, is sometimes at a loss; but I have already taken bearings of the Tallhe hill, and can give him the general direction. The land is now even again, a gently rising plain thinly strewn with gravel and with an equally thin growth of shrubs.

To the left runs a ridge of low yellow hillocks striped with dark bands of a harder slate, which dip east-south-eastwards at an angle of 15°. Several small dales run out between the hills. A caravan of thirteen camels with two drivers suddenly emerge from the mist, and pass us at a

little distance. We want nothing from them, and they have nothing to say to us; and so we pass one another as ships on the sea, without signalling, and we soon lose sight of one another in the mist.

This day, too, the temperature does not rise above freezing-point, and therefore the hoar-frost thickens on all the shrubs and bushes, which now grow close together. Nothing can be seen of the bushes themselves, for they are all white, and look singular against the dark ground. Several flat dells open out among the hills to the left, and we follow one of them; one can scarcely call them dells, for they are so extremely shallow and flat, and are rather drains for rain-water. The country, however, is undulating, at least the little we can see of it. Here and there are spoors of antelopes and of wild asses in great numbers, crossing one another in every direction. In summer the wild asses wander as far as the neighbourhood of Doasde-imam; they eat the shrubs of the desert, tamarisks, and saxaul, and drink the briny water of the springs in the hills.

After the last dell we are up again on the even plain at a little higher level than before, and the smooth hard ground bestrewn with coarse sand affords as convenient and excellent a road as a drive in a park. The track is quite perceptible, but not much worn. To the right appears again a slight rise, evidently another step running round the small ridge of Tallhe. To the left, also, small elevations are visible. The channels we now cross occasionally are probably running down to the large valley with salt water. But the country is extremely monotonous, the only variation being in the different forms of the hillocks and the outlines of the terraces, the steppe shrubs, from which we collect fuel, and the closer or more scattered growth of the rime-covered bushes. And the day's march is not more agreeable in the obstinate mist which has now pursued us for several days, hiding the view and rendering it impossible to insert in the map anything but the inequalities close to the road. Of the sun not a glimpse is to be seen, and we might have strayed into a latitude where at this season it never rises above the horizon.

Sometimes a small cairn is set up in a hollow, to show the way, where the track is nearly washed away.

We still march onwards, and the bells ring and the hours pass; but we are always in the same silent waste, where there is nothing to attract attention but such trifles as some half-burnt steppe plants showing where a camp has been pitched, or hoar-frost falling from the herbs when they become too heavy and shaggy. Reddish-yellow hillocks of clay are beside us, their upper parts concealed by the thick mist hanging over them. The land rises gently towards the south-east, and at last the little Tallhe hill shows through the dense air, an insignificant limited crest, with white strips of snow on its flanks. On the steppe below, some snow also remains in the shelter of shrubs, among which a hundred black sheep are grazing. Habibullah, who is in front, throws the leading rein over the camel's neck, and goes off to speak to the shepherd, but the camels continue to follow the narrow track which takes us right up to the ridge.

When we came to the walled-in well of Tallhe, after a march of $13\frac{1}{2}$ miles, we hesitated whether we should proceed farther to Mulkabad; but at the pressing request of the ketkhoda, and because the camels had not drunk for four days, I ordered a halt quite close to the well, in which the surface of the water stood three feet below the ground. Before the mouth there is a kind of trough cased in stone, for the use of camels, and some smaller basins, roomy enough for flocks of sheep to drink all at once. They have, however, to be filled from the well. A thin crust of ice lay on the small quantity of water that now remained.

The water was not so bad as might have been expected from the description given by the ketkhoda. Drawn direct from the well in a clean vessel, and drunk when icy cold, it tasted quite passable, and the small admixture of salt was scarcely noticeable; at any rate, it was delicious compared with the loathsome fluid which filled our sheep-skins and *meshk*. When the stone trough was filled, the camels were driven up and drank in long draughts, relishing the icy-cold water. Forage and fuel were not to be found at

the foot of the mountain, but there was abundance of both at no great distance. At Tallhe we were at a height of 3353 feet.

Immediately behind and above the well rises a wall of oolitic limestone, dipping at 70° towards N. 25° E. This wall is only a couple of yards broad, and stands like a plank supporting the loose material of which the rest of the mountain is composed. Several similar almost vertical dykes are seen in the small massive, which is scored by small valleys opening on to our plain. Immediately round the camp the hills consist of red, finely divided material, overlaid with a layer of limestone conglomerate several yards thick, which dips at an angle of 7° towards N. 50° W., and protects the hills, delaying their total annihilation. At some places the denudation has proceeded so far that the covering layer has burst up into blocks which still lie on the tops. To the south, several similar hills are seen with drainage channels between them. It is evident that the stratum was once continuous, for it covers all the hills, and is denuded only where streams have overcome its resistance.

The geographical names given me this day were extremely few, and that is not strange in so desolate a country. Not far off, to the north-east, is a salt spring called Saghab-ve-surkhab, and a terraced flat to the north-west is named Rigis-ya. Some small conical hills rise in the west. The relief is exceedingly flat and feebly marked, but one can perceive that the Tallhe hill is the highest point of a very slight undulation, with sides sloping at a gradient imperceptible to the eye. Northwards the ground falls all the way to the hollow into which a westerly extension of the Kevir extends, and which is traversed by the stream which runs on towards Kuh-i-gugird. And north of this inlet of the Kevir the ground rises to the foot of the small heights which skirt Elburz to the south.

The only products of the country are the fuel which is collected and sold in Teheran and the steppe shrubs which yield fodder for camels and sheep. Nevengk, as his duty demanded, began to make a horrible noise at night, for a man came to the well of Tallhe to water his camels. He

Rabat gur.

was at once summoned to my tent and was very welcome, for his knowledge was more extensive than the ketkhoda's. At Mulkabad, our next day's camping-ground, we should find better water than here, and at Kuh-i-nakshir it was quite sweet. At the former place we should find no people, but at the latter five herdsmen were watching 70 camels belonging to Ali Abdullah, a *gelledar* or grazier. A farsakh beyond Kuh-i-nakshir we should come upon tolerable water, grazing, and fuel at the spring Cheshme-Kerim. Quite 5 farsakhs farther on our route was a *shat* or river, and beyond the land was *rig-i-jin*, that is, inhabited by spirits, but human beings never went there, and two men who had made the attempt a few years ago had been drowned in salt slough. Our man knew a way from Tallhe to Sefid-ab, which could not be reached direct from Cheshme-Kerim, and east of this spring the country was only an impenetrable saline marsh. From Cheshme-Kerim a route ran through desert to Semnan, and my servant Gulam Hussein had once tried a way from Damghan through Frat and Rishm and through the Kevir to Jandak. He had travelled two nights and a day or a distance of 30 farsakh through perfect desert, level as a floor, and without a trace of life in any form. Half-way he had seen hills and mounds, and the track seemed to run along a slight rise in the ground, with salt depressions on both sides. From Cheshme-Kerim was seen, to the east, a very small hill, which could not be reached under any circumstances, for it stood like an island in the midst of a salt marsh of bottomless mud.

The newcomer was much perplexed about the reason and object of our journey, and said that he could not understand how any man in the full possession of his senses could purposely direct his steps to the Kevir, where he had every prospect of being lost, and where, moreover, spirits had their home and played their pranks. But he did not know that the object of my journey was precisely to see the Kevir, the wet salt desert in its flat depression, and to observe how its margin passed into dry desert and steppe. And now we had to proceed to a point whence we could set out towards this dismal country.

As regards herdsmen and the conditions of their life,

our new friend informed me that he and four other men were in the service of Haji Agha, son of Haji Hussein of a nomad tribe, but now dwelling in Mehabad near Ispahan, and that they watched his 200 camels in this district and other hills at the outskirts of the desert. They sojourned in these northern regions only in winter, and in spring set out south-westwards, reaching their summer pastures in Luristan on the border of Mesopotamia in sixteen days. The camels are not kept for work, but only for breeding and grazing, and are sold at maturity to caravan leaders. This same Haji Agha owns also 1200 sheep, which are tended in three flocks in the neighbourhood of the Cheshme-bolasun spring. Each herdsman in Haji Agha's service is paid a wage of 18 tuman a year, besides a felt cloak and a pair of shoes of the simplest kind, and in addition receives 12 batman of flour, 2 *chareks* of butter, and a *charek* of *roghan* per month. The herdsmen have no cots or huts, but live winter and summer in the open air beside their fires. They are accustomed to the presence of wild asses, and take no notice of them. The shy and swift-footed animals are said to occur in large numbers about Kuh-i-nakshir, but have their *mahdan* or chief rendezvous near Cheshme-dosan, a spring which, it seems, is situated to the north of Cheshme-Kerim.

As to my own men I had no reason to be dissatisfied with them, for they did their work irreproachably; but I already noticed that they were less adapted for dangerous enterprises, and could not compare in ability with the Turks of Eastern Turkestan, much less with Ladakis and Tibetans. Persians are pleasant, kind-hearted, and quiet, but incredibly lazy, and the work performed by my seven men could easily have been managed by two Buriat Cossacks. They ate, drank, and slept, and had a strong objection to subject themselves to the least hardship. Abbas Kuli Bek, Meshedi Abbas, and Gulam Hussein were the best of them, and we could have managed very well without the four others. Mirza has entirely taken in hand my cooking and attendance, and Avul Kasim keeps the keys of the provision chests, serves out water, and cooks for the

men. Mirza walks as long as I do, mounts and dismounts at the same time, and follows me like a shadow when I am on foot, but Avul Kasim disregards all etiquette, and rides even when I walk. All seven have capital appetites, and drink tea as soon as the samovar boils, and pounce like wolves on their dinner. They eat a solid breakfast and an equally abundant supper, and at twelve o'clock one of them goes about among the others distributing pieces of bread and fetches out a jug of water.

In the evening Mirza reads aloud to the others a book of religious legends. And gathered round the fire, his hearers lie and sit in comfortable positions, smoke their pipes, and send the kalian round. Its bubbling sound is heard all the evening, even when every other noise is hushed in the camp. They find themselves in clover, and it is pleasant to know that they are contented.

The weather was still heavy and gloomy. A fine sprinkle of snow crystals fell from the dense fog, and the sky was so overcast that there was not the slightest gleam of moonshine. Light from the camel herd's fire fell over the red and white hillocks behind the camp; to the east the desert vanished in impenetrable darkness, and silently and solemnly night returned to the earth.

CHAPTER XXI

BY DEVIOUS PATHS

On January 12 we woke again in this detestable fog, which had now increased in density, so that we could not see what the country was like at a distance of 200 yards, and even the mounds behind us were completely hidden in the thick mist. Morier's Haji Baba would not have complained so bitterly of England and its want of sun if he had ever made a winter journey in the outskirts of this desert, which lay, so to speak, just before the gates of his capital. I should rather have expected clear, fresh, and cool air in winter in the interior of Persia, and I had always supposed that this sterile and desert land must be perfectly dry and inaccessible to all ocean winds. But now it turned out that damp fogs are, on the contrary, very characteristic of this season.

It was hopelessly dark and gloomy; we longed in vain for mild winds to drive away the mist in a moment and let us see the sun again, and let our eyes rove unhindered over the level country, with its scattered islands of small, fragmentary, weathered, and disintegrated hills. Such a land, without human beings, animals, and vegetation, presents no variety in the aspect of the ground, but when one is also shut in on all sides by dense fog there is little besides the route to lay down on the map.

From the mist overhead falls a fine drizzle, which soaks everything and makes it clammy and unpleasant to touch; our hands and clothes are wet, the camels look as though they were out in the rain, the ground becomes soppy but not enough to be slippery. The minimum temperature has

been down to 28.4°, and the ground has been so cooled down that rime lies on every available object, as, for instance, the camels' forelocks, and were there any plants at the spring they would be white as usual. A thin crust of ice forms on all exposed metal objects, which may be slipped off like a glove or a snake skin.

This abundant moisture, which penetrates everything, renders the loads sensibly heavier; the tents are drenched, and when they are spread out on the ground to be folded up, fine loose particles of earth cling to the cloth and are carried as ballast on to the camels. Our honest guide is now to return, according to our agreement, but we have so much straw left that he is easily persuaded to let us have the use of two of his camels for another day's march. The herd of 200 camels, which the herdsman we saw yesterday and two other men led to water at the well of Tallhe, are a fine sight. Most of them are mares and carry small cloths, but a number of foals also jump playfully round their mothers.

We set out slowly and heavily after having left eight of the auxiliary camels, though our water sacks were now empty and a large part of the straw was consumed. A path led us south-south-westwards along the foot of these hills, which are red at the bottom with finely powdered sandstone and yellowish white above from solid weathered rocks. One of the usual shallow flat trenches leads us south-eastwards; it is very deeply scored by running water, and in its bed lie sand, pebbles, and mud in alternate belts. Occasionally a block of quartzite some 70 cubic feet in volume is seen, but otherwise the detritus consists chiefly of crystalline rocks, greenstone, and porphyry. The dell becomes more winding and narrower as we ascend it, and all is disintegrated, weathered down, and soft; the ground is wet and sticky, and in the red material especially we collect a layer an inch thick on our soles, which we stamp off on the belts of detritus. At one place the dell contracts to a narrow hollow way between very steep erosion terraces and mounds.

This dell also, like so many others before, runs up to a flat plateau-like arch where the shrubs grow rather more

freely, and from which the ground again falls slowly and evenly. It is enclosed among hills entirely of loose material; here and there grows a solitary tamarisk, but farther down there is not a sign of vegetation, and a little source comes out of the ground depositing lines of moist saline crystals along its bed. Here it is more difficult than ever to walk, this viscous moist soil clinging like a sole of lead at every step.

Before us, to the right, rises a comparatively high eminence of a red and black colour, and with very steep slopes. Its summit rises scarcely more than 300 feet above the surrounding country. It forces our valley to make a bend to the left where a smaller similar hill stands. At one time they were connected, forming a ridge which has been breached by the valley, the opening of which enters a more open arena-shaped collecting basin. To this several other such flat dells converge from all sides, except to the S. 25° W., where the united channels find an outlet to still flatter and lower country. All the fragmentary hills in the district are in an advanced stage of degradation and disintegration, are rounded, levelled, and smoothed down, and consist for the most part of loose material, but also occasionally of solid rock, which at once reveals its presence by a bolder and more rugged relief. They are ruins of former mountains which in a region where there is no vegetation to protect them from complete destruction lie bare and exposed to wind and weather, frost and precipitation, and the very great differences in temperature between winter and summer. Denudation tends, as in other places on the earth, to degrade these heights and fill up the depressions. But beside these ruins we can also notice inequalities which are directly produced by denudation and erosion, and remain after other looser material has been swept away by wind and weather.

At the foot of this hill lies an open spring basin surrounded by a little grass, an unusual and striking appearance, an oasis in miniature. At the mouth of a small steep gully, where the spring of Mulkabad is situated, we pitched our tents on the top of a flat sandy mound, where we were

72. MULKABAD.

73. REST.

away from the sticky and moist soil. Here a small stone hut without a roof had been set up, probably by herdsmen; we had seen a similar one at the well of Tallhe; they are high enough to afford some shelter against storms and snow. Wind-worn stones lay plentifully scattered about the mound, telling of all the winds which in the course of time had swept over the desert. Shrubs grew in a valley below the camp, and yielded forage for the camels and fuel for ourselves.

At Mulkabad the following rocks occur: breccia, calcareous slates, reddish-grey and reddish-brown plagioclase porphyrite, dark sandy crystalline limestone, and compact grey limestone with traces of fossils.

At half-past twelve o'clock fine thick snow began to fall, and the mist lay heavy over the camp. The temperature was a little above freezing-point, and the snow melted when it reached the ground. My tent became so wet that drops fell through in several places. The fog, snow, and heavy clouds made the day dull and gloomy, and it was vain to look for the slightest gleam which might foretell the coming out of the sun—two hours' sunshine would have sufficed to dry our tents and belongings. Nothing living is seen in this God-forgotten waste, where we are monarchs of all we survey.

The ketkhoda, Hassan, had now fulfilled all his obligations, and was to return to Kerim Khan. He received his pay, besides a liberal gratuity, and a testimonial of excellent and conscientious service. Before he went he indicated the direction we must take the next day, and pointed east-north-east, where we should find Kuh-i-nakshir. He did not know the country farther east, and therefore we were left to our own resources and the Russian and English maps I had obtained from my friends in Teheran. My chief desire was to see as much as possible of the great salt desert, the Kevir, but I was not yet quite clear whether we ought to keep to the north or the south of this great depression. If we went to the north to reach Tebbes, we should be obliged to traverse it, while if we travelled to the south of this zone we should certainly execute a very valuable survey of its southern boundary,

but not have an opportunity of entering into the desert sea itself—unless I exposed myself to the risk of crossing it in two directions.

The snow soon changed into drizzling rain, and as soon as it became rather thinner I went up to the spring of Mulkabad. A path runs up to the little gully, and in an expansion concealed behind a wall of rock lies this jewel—a sweet spring in the desert. The water trickles out of the ground, and the herdsmen have digged a basin and strengthened its edge with a breastwork of small stones. In the uppermost and largest basin, which is oval and has a surface of about 85 square feet, the water bubbles up and is reinforced by a small rivulet from a spring situated higher up. The basin is fairly deep, so that the water, when it has stood and cleared, shows a beautiful bluish-green tint. Below this basin are two others, and from the lowest a tiny rivulet descends through a chasm which opens on to the large expansion of the dell. A sill has been formed in the solid rock, over which small threads of water fall with a pleasant splash. Long icicles hang on the upper rim of this tiny cascade. The salt in the water is deposited below in thin white crystals; and on both sides, as well as at the spring itself, a little grass grows. Beside it two long walls are erected, where the herdsmen dwell when they pay the spring a visit. Camel and sheep droppings and shreds from their coats, as well as marks of fire, show this.

But not only shepherds resort to this happy spot where the little spout of water rises into daylight. Wild asses also come here, through the acquired and inherited experience of unnumbered generations familiar with the places where water is to be found, be they ever so well hidden among the hills scattered about at random. The ket-khoda had admonished us to take notice of the wild asses' spoors, if we should be short of water, for if they converged together towards a definite direction, we might be sure that they led to some spring. I had availed myself of this method before, namely, in the year 1901, in the Lop desert, where on two occasions the spoor of wild camels had shown me the position of springs.

Rock pigeons played and cooed on the bare precipice beneath which I sat looking over the desert country as far as the still obstinate fog permitted. Through the two openings of the gully there is a free view over the small scattered knolls, really relics of denudation, reminding one of holms in a fringing belt of rocks, without water and wood, in shades of red and yellow, dead and bare like the face of the moon. The valley which descends to the south-south-west and is the main drainage channel of the district, is seen to emerge soon on to level ground, and beyond its mouth an extensive plain apparently lies.

While I sat musing beside the spring, I heard the everlasting camel bells sounding shriller than ever, for the clang was loudly echoed from these naked moist cliffs. The whole hill seemed to be set in vibration, and unseen caravans seemed to be approaching from all sides. But soon my own fine camels came round a turn on the path. They strode slowly and silently on their soft pads and with a royally majestic gait up to the spring. They did not dash greedily and wildly at the blue mirror of the water, but bent with great dignity, gently, and with restraint, as though they were at first astonished at their shaggy reflexions in the water. They bent lower, and their lips came in contact with the life-giving fluid, which they sucked up in long, slow draughts. They raised their heads, looked round for a minute, and then drank once more, and then the herd strode down again at the same quiet and regular pace to their open-air stall and their straw scattered over the ground.

The water in the large basin of the spring had a temperature of 63.5°, when the temperature of the air was about freezing-point.

Late in the evening the mist thinned and the cloud covering of the sky showed more relief; it was possible to distinguish individual clouds and layers, and there was not as hitherto a universal grey mistiness. Stars of the first magnitude shone out in the zenith, and we hoped for better weather and longed for a glimpse of the sun, which we had not seen for so long.

At half-past six on January 13 the fog was denser and

more impenetrable than ever, and when Mirza, as usual, brought in the brazier and made preparations for my morning toilet, he asked whether it was reasonable to start on such a day, when we could not see where we were going, and might wander into country where there was no water. But half an hour later the scene was totally changed. When I went out to make the usual meteorological observations, the fog had disappeared, and had risen up into white clouds which covered only half the vault of heaven, while the other half was clear and blue. The sun was still veiled in clouds, but we knew at any rate whereabouts it was, and were pleased at that. The cause of this unexpected and welcome change was evidently the tolerably fresh north-west wind which had just arisen, and according to its wont had swept the fog completely away. Half an hour later the clouds also had been dispersed, and summer brightness had succeeded the gloomy light we had recently experienced, and seemed to announce the welcome approach of spring.

A thin coating of snow remained after the fall during the night, but it disappeared early in the forenoon. Our hesitation caused a delay; not till the fog thinned were the camels led to the spring to drink their fill—a precaution the more necessary now that we had lost our trustworthy guide. Fortunately Habibullah had once been at Kuh-i-nakshir, and felt certain that he could lead us thither. While the men were loading the camels I started on foot after Habibullah had shown me a small dark knoll which I must pass on the right; after that we had only to follow a track which was marked here and there by a *nishan*, or small heap.

I took long strides, soon leaving the spring and the noise of the camp behind me, and saw from a small rise that the country to the east was as uneven as here. I got warm with walking so fast in such summer weather, and the north-westerly breeze at my back felt fresh and cool. The clear pleasant weather was exhilarating, and I enjoyed being alone in the great desert land, where the silence was broken only by the sound of my own steps. Some snow still lay in sheltered shady nooks and under sharp

erosion edges; the steppe shrubs were scattered, withered, and poor, and seemed hardly useful for any other purpose than to feed camp fires.

So I walk on in solitude, compass in hand, and take bearings in the direction of the track and of the objects to the side; I know the length of my step, and can apply it to the reckoning of distances with as great accuracy as the camel's stride. Dry reddish mounds of clay containing sand and gypsum, somewhat protruding owing to its greater power of resistance, stand on either side. Here and there gypsum crystals shine and flash, and when the sun is reflected on their smooth facets they glitter like electric light. Two small watersheds are crossed by my path, which beyond the second guides me eastwards. The bare and empty country stretches out terribly desolate and dead wherever I look; a curse seems to rest upon it, as though it were doomed never to be trodden by man, and never bear ripening harvests. But that it also conceals certain secrets may be read on the ground where trails of the children of the desert, the wild asses, cross one another in every direction, sometimes in incredible numbers. Not infrequently I pass spots lately trodden by light-footed flying gazelles, and I long to see the animals themselves, and I ought to have a better chance of doing so now that I am alone and no caravan bells scare the shy dwellers in the desert to flight. But, nevertheless, they keep themselves out of sight, and only the spoor is there to give evidence of the animals' existence.

The country is practically quite sterile, and pebbles and loose stones seldom occur; but where they are to be found they have been utilized for the construction of small cairns, which seem quite unnecessary, for the track follows for the most part a plainly marked though shallow furrow. The only other sign of life in the perfect solitude is the trail of a number of camels, probably those we saw at Tallhe. Their footprints are extraordinarily distinct, even the smallest callosities and inequalities in their footpads being impressed in the soft earth. Two herdsmen and two dogs had been with them.

Now I have left the dark elevation behind me and a

higher one, to the north-east, crops up behind it at a distance of fully a mile. The Tallhe hill hides Elburz, and I am deprived of the opportunity of taking bearings from Demavend, which would otherwise be possible, for the sky is quite clear. Here the country is more rolling than before, and it seems that the perfectly level desert must be still far away.

Still I follow a path marked by cairns, which evidently leads to a spring, and still I tramp in the spoor of wild asses. Sometimes I seem to hear the distant, scarcely audible clang of bells, and suspect that my men are following in my tracks; but they had not taken down the tents when I set out, and I have a long start and continue my solitary wanderings.

The same dip and bedding prevail everywhere in the rocks, and set their stamp on the relief; to the north-west the strata break off in a steep escarpment, while to the south-east they dip gently. Now the valley expands, and in the basin shrubs grow freely, and here and there a small group of tamarisks struggles for existence. Down here there is not the slightest sign of snow, and one is astonished that so small a difference of height can have such an effect; but here the land is flatter and more even, and affords no sheltered spots where the snow can linger.

Before me, to the south-east, stands another ridge not far off; it is lower and more denuded than the preceding, and one can see that the dimensions of the small isolated desert elevations gradually diminish towards the south-east and east. Beyond this last ridge is seen, through a gap, what an inexperienced stranger would take to be an open sea, a blue boundless surface with a horizon as even as though it had been drawn with a ruler. This is the great Kevir, the dreaded and dangerous, where spirits keep house, whither but few Europeans have ventured, and which I shall soon cross in a part where no one has been before.

Behind me I see the small elevated group I left this morning, and over its summit sharply defined dark clouds hover; they might be taken for vapour rising from a still active volcano, but either they are composed of dust raised

from the hill by the north-westerly breeze, or they are actually steam-clouds from the spring, the water of which is much warmer than the air. No, indeed; they are neither the one nor the other, but are simply the vanguard of a train of light clouds which are advancing southwards.

North and north-east fresh ramifications of Kuh-i-Tallhe appear; one such, not directly connected with the red main group, bears a tabular stratum, which, however, dips a little as usual towards S. 30° E.

Still I seem to hear the ring of bells, but down here in the open country not a glimpse of the caravan can be seen. It may be a stored-up echo which still lingers on my tympanum, and that is not improbable, for usually the ringing sound is always in my ears. I rest a while at a tiny patch of snow in a fissure, and refresh myself with its coolness. But something is wrong, and I cannot go on longer in this way. The hours have passed, and the caravan ought to have overtaken me; at any rate, the sound of the bells should have been borne to me on the north-west wind, and at least a glimpse of the dark backs of the camels should have shown itself over the hillocks.

Of course I ought to turn back, but I have a rooted objection to retrace my footsteps, and I go on as before, along the camel track. Sometimes I stand still and fancy I hear the sound I have expected so long, but it is only the wind whistling against the weathered edges of the ridges or against my cap peak, or next time the ring of my footstep on a stone slab. Again I hear the tinkling sound of a caravan on the march, but I cannot tell whence it comes; but I halt once more, and the waste lies in dead silence—not a sound is to be heard, not a fly buzzes, and wherever the wild asses of the desert may be resting, they have fled to-day from the neighbourhood of Kuh-i-nakshir.

In my path rises a mound 50 feet high—a barren slab of limestone with the usual dip to the south-east; and on its top a cairn has stood at one time, built up of sherds and splinters which lie scattered around. At its foot also runs a path; I have indeed strayed a while from the trail

of the camels, but I can see the point where I left it, and I have a free view over the wilderness for far around. In every direction crop up these red, purple, brown, yellow, and grey limestone hillocks helplessly sinking to annihilation, exposed as they are without the least protection to the resistless forces of denudation. Within my range of vision they fall flatly and slowly to the south-east and steeply to the north-west, nay, often suddenly or vertically, the limestone stratum being abruptly broken off at the ridge of each hill and passing at a sharp angle into the screes at the foot. It would be absolutely impossible to climb up from the north-west on to the mound on which I stand.

The wind is soft and mild, with a temperature of 44.6° ; the sun is out, and gives me a notion of what this land must be like in summer. The naked ridge of Kuh-i-Tallhe rises to the north-west, and I can only pass the time by drawing a panorama of it. From east to south-east extends the mysterious horizon of the boundless desert sea, and some shallow erosion furrows make for its western margin, through which, from time to time, temporary streams pour down to perish in the interior of the Kevir. Its border must be sharply drawn, and must run yonder on the other side as a flat ridge eastwards.

The great desert draws me on with its strange fascination. I want to hasten thither and listen to its deep silence hovering like a cloud over its level surface. But I cannot go thither quite alone, and either I or the caravan has gone astray. We have lost each other, that is plain. I set out four hours ago, and I have followed the track and the cairns all the way. Possibly the men have lost my trail at some place where I tramped over a pebbly bed, but they should not have gone farther until they had found it again. But the easy and careless Persians are not like Mongolians, Buriats, and Tibetans, who persevere like bloodhounds till they find what they seek. Have my men not left the little spring, overcome by dread of the desert after I disappeared behind the hills on my mysterious mission, which they cannot understand? or have they lingered to collect fuel for the evening fires? But very likely the fault is mine. This path is not the right

one; it probably leads to some expanse of steppe, and the cairns are erected to guide herdsmen to a spring in foggy weather. I have now had enough of the great solitude; the sky is clear and bright, but the days are short, and if I do not wish to sleep under a ridge of limestone it is time that I find my men.

While I am considering the situation I am roused from my meditations by a gun-shot, which comes from the north-north-west where the bare red cliffs of the Tallhe ridge stand dry and scorched after basking in the sun for thousands of years. Soon the echo dies away after the shot, but I have taken note of the direction whence it comes. It has the effect on me of an electric shock, and gives the answers to all the questions I have propounded to myself. The men have evidently taken another way, and this Kuh-i-nakshir we have so often heard about during the last days is only a part of the Tallhe group; but the signal sounds faint and the distance must be great.

Now I hurried off in the given direction, but I had to make a long round towards the south-east to descend the hill, and then I walked at a rapid pace. It was, however, easier said than done to make my way through this troublesome ground. I had to cross hundreds of deep dry erosion furrows and constantly go up and down; scarcely was I over one when another yawned before me; they were not many feet deep, but they had steep sides down which I stumbled in the loose porous clay only to have to clamber up the other side, and the time flew and the sun sank. Before me rose an outlying elevation, and I did not know whether I ought to pass it on the left or right, but thought that the former course was the shorter, judging by the direction of the shot.

Now the ground became worse, a tangle of hills and ravines and erosion furrows. Sometimes I thought I heard curious sounds and stood still, but all was quiet. How often I was deceived by a shadow on the slope like a camel, but it did not move and that settled the question. I mounted up towards the hill, and the higher I ascended the more disintegrated and eroded was the waste, and it was heavy work to get up, for I was not accustomed

to such jumping about and began to feel tired. All day long I had been wandering south-eastwards and was now making north-north-west. Bit by bit I laid down the route on the map, leaving no gap.

A dale took me in the wrong direction, and I had to leave it and make my way over rugged hillocks to another which wound about in every direction. How easy it is to lose one's way in such country! An intricate labyrinth of deeply excavated erosion corridors, a maze of valleys in all directions, the smaller ones converging like rays to form the larger, and these small hollow passages usually lie only ten or twenty yards apart. It is a very dangerous place, and I hasten my steps as much as I can, thinking how easy it would be to pass one another if we followed different passages, and how hopeless it would be to find any one in this misleading labyrinth.

Perhaps a herdsman fired the shot; but no, they are not armed. Perhaps some hunter of an iliat tribe; no, it was surely one of my Cossacks. The longer the time since its echo died away the fainter the first vivid impression becomes. And now the silence rests sadly and heavily in these desolate valleys. The sun touches the horizon, and in a while the dusk will spread its obliterating veil over everything that was lately in light or shade; there is little left of the day, and darkness and night are coming on, and even in moonshine it would be impossible to find my way out of this rat-trap. Here and there tamarisks grow. Before it becomes pitch dark I must find some convenient spot, some small grotto or cleft near this herbage where I can at least make a fire which will last several hours; but I am not likely to get any supper to-night, and it is cool lying out of doors. I am angry with the seven men, of whom none has managed to keep an eye on my wandering trail, but has only thought of himself and how he could reach most quickly the next spring, where rice pudding and boiling tea would be his first consideration.

But now it grew darker, and it was the more difficult to judge of distances and the depth of the dells. Overcome with weariness I struggled up one dell and furrow

after another, approaching the new hill with ever slower steps, and thinking at every place where tamarisks grew that I would come to a halt, when I plainly heard a distant shout which broke through the silence and died away. I shouted back with all the power of my lungs. It was, no doubt, one of my men, but he could not have heard my answer, for soon another gun-shot resounded nearer than the first.

Now I went on again, hurrying up the dell in which I found myself. It was incased in perpendicular, and sometimes even overhanging walls of clay-slate, but sooner or later it must lead to a small bridge. All very fine! It ended suddenly like a bag, a *cul-de-sac*, a small apse surrounded on all sides by vertical walls which even a cat could not have scrambled up. There was nothing for it but to turn back, hurry down, and try another dell, perhaps as deceptive as this. It was at any rate pleasant to go downhill a while, but I did not think much of it. When I came out of the dell I went up another at haphazard. There was no other shout, no gun-shot, and perhaps I had gone away from the scouts. But this time, clambering up a steep projection, I succeeded in reaching the top of a hill and saw at length two men, a long distance off, ascending a small height to look round.

I called to them, and they came jumping down to meet me, but were soon lost to sight in one of the deep hollows. To get round all this misleading bundle of open cuttings, which run at right angles through the slates, we had both to make long détours, and when at last we met on a ridge the darkness was intense, and we caught sight of one another only just in time.

It was Abbas Kuli Bek with his gun, and Habibullah who now, breathless and astonished, informed me that they had been greatly troubled about me. They had travelled by the only direct road to the spring, which along the foot of the mountain follows a valley invisible from the course I took. They had not thought of me and my lost trail till they had reached the spring and found I was not there. Then they had become uneasy, had understood that something was wrong, and had gone out to

search in different directions. Abbas Kuli Bek perceived that I must have gone astray, and that he must find me at any cost before darkness set in, and with Habibullah he had wandered up and down and out and in among the countless dells without finding any trace of me. They had not heard my shout, and became still more uneasy when I did not even reply to the gun-shots.

We had still a hard time before us, crossing a country worse than the wildest fancy could imagine. We had to go straight across innumerable deep troughs which gather together to a larger valley; I was more and more overcome with weariness, and stopped more frequently to eat the damp snow which lay thicker up here. Some thick dry tamarisk bushes grew in a small sheltered hollow. Habibullah has a kind of mania for fuel, and cannot pass a stick without picking it up. Now he could not resist these bundles of grand fuel, and asked if he might break them off and gather them together. Yes, most certainly. Meanwhile, I lay flat on my back, lighted a cigarette, and waited. All too soon he had his faggot ready, and we moved on again. But now our leader was weighted and no longer tramped on so quickly.

A quadrangular wall of stone stands on a flat elevation, the ruins of a *serger* or temporary cabin erected by some party of iliats who once sojourned at Kuh-i-nakshir.

"How much farther is it?"

"Oh, only half a farsakh; the camp lies up there at the foot of the hill."

Up and down we went unceasingly, and not a flat stretch of ten yards long made it easier for us to reach the hill. In the darkness two camel riders were seen afar off; as soon as they caught sight of us they turned in our direction. It was another rescue party which had just started out, and now they were delighted to find that there was no need to search through the dark passages and corridors.

The spring is yonder under the mountain, behind the white slope, says Habibullah as he walks bent beneath the weight of his bundle of branches. The distance is still considerable, but at length we stand at the edge of a

valley where something black appears in the upper part—it is the camels lying in a circle around their chaff—and after a final struggle we are beside the camp fire.

They were dreadfully anxious, Mirza said, and all the men were going to scatter in all directions and search the country, only one man remaining with the camels. But now they were glad I had come. It was January 13, and I had lighted my morning cigarette at the wrong end, so evidently there must be some trouble. But all is well that ends well, and I had had a good walk; and now I perceived that in future I had better not go far from the caravan unless I was sure of the way. Had there been a change in the weather, and had a fog such as we had experienced during the previous days fallen over the country, it would have been still harder to find the way.

While the darkness increased I sat a while by the fire in my comfortably warm tent, and was glad that I had not to sleep out in a cleft. For dinner appeared the last chicken but one from Veramin, and it tasted excellent to pillau and toast. The camp was the best we had found for a long time. Some grass grew in the valley, and the spring which formed a small rivulet yielded perfectly sweet water. We therefore decided to stay here over the next day, so much the more that I was thoroughly tired out, and that the camels needed rest after the trying country where they constantly went up and down. The absolute height was 3691 feet.

CHAPTER XXII

STOPPED BY THE GREAT SALT DESERT

During the day of rest the camels looked after themselves and tried the scanty pasturage in the valley, but they found their own way back to camp in good time, for they knew that they would get better fodder. For myself I took a good rest, drew a panorama of the country, and calculated the distance we had traversed, only 93 miles from Veramin; but we had no reason to hurry, and we were dependent on springs.

Now we had to decide which way we should go. We were at the western margin of the great Kevir; should we travel to the north or the south of the salt desert? The northern route would take us along its northern edge to Reshm and then right through the desert by a way Gulam Hussein knew. But the other way seemed more attractive to me, for, following the western and southern skirts of the desert, we could direct our course to Jandak, a convenient place of sojourn and a centre whence with experienced guides and hired camels I could make an excursion into the heart of the desert. Jandak is surrounded by deserts on all sides, and its inhabitants must have all possible knowledge of the country.

We held a consultation about our plans, and Avul Kasim announced that the store of meat was certainly coming to an end; but that there were rice, flour, and roghan to last more than twenty days, and before all was consumed we should have opportunities of buying more. There were straw and cottonseed for the camels for ten days. But water was the most important article, and we

74. A Pool of Sweet Water.

75. Gulam Hussein and One of our Best Camels.

resolved to fill our sacks from the spring, a supply which would last nine days, and made full loads for three camels. It is reckoned 30 farsakh to Jandak and eight days' journey, and no danger could arise to the camels, as it was not very far from the route to hilly country with springs. We therefore need not resort to the springs of Cheshme-Kerim and Cheshme-dosun lying quite near to the north-east, and were independent of herdsmen, whose information is often unreliable. Habibullah was quite right when he said that the herdsmen who frequent the above springs always spend the winter in the neighbourhood, and therefore can know nothing of other districts at a great distance from them.

At any rate, he had to go to Cheshme-Kerim to try to buy two sheep, but his mission was quite unsuccessful, for there was nothing living to be found at the spring, not even shepherds; to judge by certain signs they could not be far off—he thought they were feeding their flocks on the plains at the foot of the mountain. On his way back Habibullah experienced a somewhat unpleasant adventure. At the entrance to a valley he almost fell into the jaws of a panther, pulled up at thirty paces from the animal, and rushed almost dead from fright up a pointed hill. The panther looked at him for a time and then crept up a cleft. Then Habibullah dashed down the opposite side of the hill, ran off at full speed, and arrived at the camp much shaken and breathless. I thought of my long wanderings the day before, and wondered if the panther spied at me. It might have been very awkward to lie out of doors in a country where such wild animals are the nearest neighbours. Panthers here live upon antelopes, gazelles, and other game, but do not turn up their noses at a sheep if it comes in their way.

The weather during the day was good; in the afternoon the northerly wind covered three-quarters of the sky with clouds. Hussein Ali, for the first time, gave a specimen of his skill as a hair-cutter, but this was a risk I ought never to have ventured on. He handled the scissors recklessly, and nearly clipped off the tip of my right ear, which was fastened up with sticking-plaster and bandaged.

At night the temperature sank only to 34.7°. My men had expected a visit from the herdsmen who were tending camels in the neighbourhood, but they heard nothing of them. They go only every third evening to the spring, and remain two nights on the steppe without water. A strong wind blew during the night, and as it came from the south-east it quite covered the sky with clouds as usual. The morning also was cool and dull, but fortunately the air was clear; perhaps there must be a heavy fall of snow before thick fog is formed. Three of the large camels carried water sacks, all of them now watertight but one, which leaked the whole way, and had shrunk very considerably when we came to the next camp. We marched slowly down a furrow, where the rivulet from the spring soon dried up. As it became too stony and winding we left it, mounting up its right side, where light green disintegrated mounds alternated with shallow trenches. In itself the light rock is quite hard, but in such a climate as this no material can withstand the forces of denudation. These mounds, which are often worn steep at the base, are conspicuous by their fresh bright colour; their position is the same as those we have seen before.

All the offshoots and ramifications of Kuh-i-nakshir are here parallel to our route; but they form no continuous ridges, being often broken by low saddles and breaches. The higher parts, the nucleus of the small group, consist of a reddish-brown porphyritic rock, but the farther we recede from Kuh-i-nakshir the rarer is the reddish-brown colour, while light green limestones and clay-slates become predominant. We are forced by the configuration of the land towards the south-east, though I would rather march eastwards to see if there be not a possibility of venturing into the Kevir from this direction. But we must, as far as possible, follow the dales, lest we should land in such a labyrinth as that I had made a close acquaintance with yesterday. Certainly the ground slopes east-south-east, and we are obliged to cross some of the dells, but they become shallower the farther we go. Small ridges and backs still lie between them, pointing like fingers down to the desert.

We follow a main valley for a long distance. Here stands a cairn. The western flanking terraces are five feet high, showing that at times very powerful floods of rain-water find their way through this drainage-channel to debouch in time into the inner, level, almost dried-up sea of the salt desert, the Kevir. The silent valley is not so entirely devoid of life as might be expected. Dry and also fresh shrubs occur in abundance, and sometimes the roots of tamarisks still seek moisture from the dry soil, and their stems are thick and strong. Once a flock of rock pigeons is frightened away by our noisy train, and spoors of camels and wild asses are seen everywhere.

Our valley became ever shallower and broader, its skirting hills lower, its pebbly bottom thinner, and the pebbles themselves smaller. A little down our route was seen a dark moving speck, and we discussed the question what it could be. We had hoped for a wild ass, but it soon turned out to be an old Persian coming slowly towards us. He was white-bearded and bent, but dignified and calm in his demeanour, and had evidently had to do with people before. He had grown old in the service of Ali Abdullah of Mehabad at the foot of Kuh-i-nakshir, and had 30 camels in his care. He had now left his charges at some distance, while he collected fuel. He had seen a large panther in a furrow the day before, possibly the same which had nearly frightened Habibullah to death.

We halted a while to extract from the old man all he knew about the geography of the district. He pointed to the direction where the Cheshme-Kerim and Cheshme-dosun springs were situated, and most certainly they come up on the eastern side of a small group of hills belonging to the same fragmentary system as Tallhe, Mulkabad, and Kuh-i-nakshir. We should not, therefore, make much progress by carefully making our way from spring to spring; it would be better to travel independently of them and march in as straight a line as possible, to get over the ground. At the southern foot of the mountain the old man knew of three springs—Cheshme-bolasun, Serdum, and Ser-i-busurgi. He would willingly have guided us for a day's journey if he had been prepared the day

before for our coming, but now he dared not leave the camels.

The old man confirmed what we had heard before, that it was possible to skirt the Kevir either on the north or on the south; but to travel straight eastward from Kuh-i-nakshir he considered quite impossible, for in only two days' journey an expanse of salt desert was reached which, apparently firm and level as a floor, really consisted of soft soaked mud, wherein men and animals would sink up to the neck and be irretrievably lost. They are dead men who go thither, he said. Fifteen years ago a sa'ab (sahib, European) had been here with the intention of going out into the Kevir, but had returned when he found that it was no easy matter. We must keep south-westwards to a place called Dere-i-solamat.

This year the weather was very favourable, but three years ago there had been continuous rain and snow, both very unfavourable for camels; after rain the ground becomes smooth and slippery, and if it rains six days on end, as happened then, the animals cannot reach their pasturage on the steppe.

After following us for a while the old man returned to his fuel-gathering; how dreary his life must be year after year among camels without the least variation or opportunity of enjoyment!

We leave the dale, pass over a low ridge, and come out on to almost level steppe, where two wild asses fly westwards in a cloud of dust. I had my glass at hand, but the distance was so great that I could not obtain a clear view of them; they were like kulans, but they seemed far shyer than the wild asses of Tibet. A small erosion furrow leads us to the south-south-east; it runs to the Kevir, the margin of which will force us to entirely change our direction. It is evident that we must go round the salt desert, for at a distance we can see that it is impenetrable, that it is like a lake, that its surface will not bear, and we are rapidly approaching its shore.

The steppe character becomes more pronounced, the country becomes flatter, only at some distance to the side are seen slight undulations; even after five hours' march

the erosion furrows are still distinct, though water in any quantity can seldom find its way so far down. Here green clumps of tamarisks are quite common, and there is no lack of material for large camp fires. We steer a course south-eastwards, straight to the shore of the Kevir. Avul Kasim believes that it is half a farsakh off, I estimate the distance at two farsakh, and it is evening before we reach it. Distances are deceptive, the varying shadows and belts mislead one in this flat country. The white expanse of the Kevir seems close at hand, and yet we wander for hours without coming perceptibly nearer. To the east-south-east a crooked strip of yellow colour winds northwards in the midst of the dark depression of the Kevir; probably it encloses a mole of dry firm ground, but it tails off into the soft swamp. To the left stands a small isolated group which, like most of the foregoing, seems to lie on the lines of elevation radiating from Kuh-i-nakshir. We have a convenient and comfortable pathway to-day, and sometimes at the bottom of the shallow furrows we follow the ground is as even and hard as an asphalted street, and, besides, the land falls, however slowly, in the direction of our route. We are therefore able to cover nearly 18 miles due south-east.

Saxaul occurs in tall bushes, and like the shrubs is thicker near the furrows, where it has a chance now and then of sucking up water. Before us the white salt field of the Kevir still seems as far off as ever, and now the steppe flattens out, and not the slightest undulation is noticeable beside us. To the eye the fall is only perceptible when the flat contour line of the detritus cones is compared with the absolutely level horizon of the Kevir, which is only broken at a very remote distance to the east by small mysterious hills, perhaps never trodden by the foot of man, and inaccessible both in boats and on foot. They stand up like islands in the saline bath of mud.

Now the Kevir spreads itself out, more and more dominating the landscape with its brown, dark, yellow, and white strips and flats; there seems to be no water, but we take the white to be salt and the dark, mud. The

detritus becomes finer, the shrubs more scattered, and the slightly marked edges of the furrows are more rounded and degraded. Everywhere is seen spoor of wild asses, and sometimes we pass places where they have lain down to rest. How often we stand at a spot where a *gur* or wild ass has quite recently passed, and wish that the strange animal itself were there in its tracks! We direct our course to a distant promontory of a chain of hills to the south, but are cut off from it by a small western offshoot of the Kevir. Could we hold on our course, it would be well, but the ground in the arm of the Kevir will not bear. We pitch Camp 9 not far from its edge in perfect desert. The height here is 2343 feet, so that we have descended 1348 feet during the day's march.

From here we have a fine view of the hill of Kuh-i-nakshir, and to the north are seen other smaller heights; while to the north-north-east we know that the foothills of Elburz lie, but we cannot see them; to the south runs the small ridge we have had all day in front of us. Between all these upheavals of the earth's crust stretches the depression which in the course of time has been filled up and levelled by alluvial mud, and whither the salt of all the surrounding watercourses collects to form in favourable spots a crust or layer ever increasing in thickness. This western part of the Kevir is very sharply limited, and now our task is to follow its edge as closely as possible, and insert it in a map.

The sky was covered with heavy clouds, and the night was pitch dark before the moon rose. There was no wind, the smoke rose straight up from the camp fires, but it was quiet and silent in the camp earlier than usual, for all were tired after the day's march, which they had accomplished entirely on foot. Nevertheless, the bubbling of a water-pipe was heard, even at midnight, when some smoker awoke and could not resist taking a puff.

On the night preceding January 16 the minimum temperature was 38.8°, and in the morning all the sky was covered with low floating clouds. Low though the hills around us were, their crests were hidden in this veil of mist. But otherwise the weather was fine when we

broke up early for another day's experiences; it neither rained nor blew, and at one o'clock the temperature was 47.3°, and no wraps were necessary, even on the camel's back.

Not far from the camp we came to the edge of the Kevir, the first zone of which consists of a grey dry crust, fragile and brittle, resting on a soft foundation, and as even the spoor of wild asses ceased here, indicating that the ground was unstable farther out, we thought it wiser to keep to the *leb-i-kevir*, or the margin of the salt desert, as the Persians call the shore-strip or transitional belt between the hard solid pebbly ground and the yielding salt desert. On this outer Kevir zone a few dwindling plants still grew, but the next belt, at a distance of a couple of hundred yards, was quite barren. We had, then, to keep along the desert margin, in order to remain on solid ground; but we would try as soon as possible to cross this western offshoot of the Kevir, which now forced us to completely alter our course. We had already attempted to pass over a small creek, but had not gone far on the dark crust before the first camel sank up to his knees and was brought to a standstill. Warned of danger, we at once turned back in our steps, where at least we knew that the ground would bear, and where the footprints were only 4 inches deep. Had the first camel taken a few steps more he would probably have sunk still deeper, and had he still tried to struggle on, he might have been lost. His imprint yawned like a black hole, and the bitter salt water immediately collected in it like pap or a mud-bath.

Where the surface of the Kevir is dark the ground water is evidently highest; the yellow flats and strips are small swells quite indiscernible to the eye except by their colour, and are perhaps only 4 inches higher than the black parts, but this slight difference of level is sufficient to allow their surface to dry more quickly. The dark belts are therefore depressions, a conclusion in accordance with the fact that they lie at a distance from the "shore," even though offshoots and bays of these dark expanses extend quite up to the edge of the Kevir.

We then tried to keep to the flat hillocks, not more

than 30 feet high, which bounded the Kevir depression in terraces, and which we found almost as tiring because of the innumerable small gullies we had to cross. We therefore descended again to follow closely the shore line, where we also lost time and patience; for small offshoots, capes, and promontories pointed like fingers out to the level surface of the Kevir, and we had to go round all the projections and creeks.

I walked for two hours, and found the journey very tiring, for though the shore was quite dry it was so soft that I sank in at every step. It was therefore pleasant to sit up again on my sturdy camel and jog on through this singular and strange land of a desert type I had never before seen. At first we turned about to almost all points of the compass, but gradually the route improved, and the shore line became less irregular. Here and there a thin covering of pure white salt lay on the yellow under layer. Ravines and gullies that break through the hills descend to the shore of the desert, where they come to a sudden termination, like drainage-channels debouching into a lake. Before the larger of them a small extension of solid ground juts out, thinly covered with pebbles, overgrown with shrubs, and traversed by a radiating system of tiny delta channels. We have here the sketch of a hydrographic system, a landscape which has certainly been moulded by water, of which not a drop is now to be seen except in camels' footprints a little distance out from the shore. Nay, it is only necessary to stamp one's heel into the treacherous ground to see the water filter in from all sides; and, in general, the dark desert belt is covered with a very thin crust, so slight and brittle that it gives way even under the paws of the dog.

The Kevir is, then, a kind of masked subterranean lake, concealed and filled up by the loose material carried into it by the watercourses; it is a lake which contains more mud than water; a lake with a bottom which, paradoxical as it may sound, lies higher than the water surface, for we should have to dig down some 8 inches into the solid matter before coming to the water. The Kevir appears to the eye as we glance over it a dried-up lake,

and all the channels which enter it are, without exception, quite dry; it is really a hydrographic system of beds without water. But though the land now lies dry and lifeless, and though one listens in vain for the sound of purling water, yet there is water beneath the dry dark crust, and turbid flood streams foam along the furrows after heavy rain. It is a rare occurrence, and the beds dry up again after the rain has ceased, wind and weather begin again to do their part, and after the next rain all the fine material is washed down into the Kevir and helps to fill up the depression. In the region where I now first made acquaintance with a true *kevir*, its surface is as level as a lake—on the whole, of course, without reference to small inequalities. It may then be concluded that these low regions are a bed of mud, a viscous mass with a surface which, like that of other fluids, assumes a horizontal position. When fresh mud is swept into the Kevir it forms no elevations but spreads out evenly and horizontally. It may also be taken for granted that the yellow belts which seem to be firm and more dried up are but ephemeral phenomena, which change their appearance and consistency after heavy rain. And sometimes we pass over belts as to which it is difficult to decide whether they belong to the Kevir or to the firm dry steppe land, as, for example, when the yellow soil has been superficially covered with fine pebbles by a heavy flood. Only when steppe plants grow among such gravel can we say for certain that we are on solid steppe land.

The shore, or the flat strip of steppe, is usually 100, seldom 200, yards broad, and we have the front of the hills on the right hand and the Kevir on our left.

We had twice heard of a path which ran from the south to the spring of Mulkabad, and this path, if it were not quite obliterated in the insecure ground, was our hope. Should we find it we should be able to cross the Kevir, but, if not, then we might be forced to travel westwards to the neighbourhood of Kum; and I had also pondered if it were not wiser to start from Hauz-i-sultan, Kum, or Kashan. But now we had come straight to the Kevir, and we must work our way through it somehow.

At first we march south-west, but afterwards we are by degrees turned by the Kevir shore straight towards the west, and so are farther removed from the low hills on the southern shore which are our next bourne. Our involuntary détour was, however, by no means fruitless, for I was glad to obtain by this means a more thorough survey of the Kevir in its western extremity. Here and there the spoor of a wild ass disappears in a row of dark spots towards the Kevir. These animals, which spend their lives around the treacherous desert where their senses and powers of observation are sharpened to the uttermost, know exactly where the dry crust is hard enough to bear their weight. Only in such parts do they venture over to reach the springs and pastures at the foot of the southern hills. But it would be very dangerous to trust to such a spoor, for even where the ground bears the light, swift-footed wild asses, the heavy, slowly moving laden camels would sink into the slough.

Even where the Kevir seems at a distance level and smooth as a sheet of ice, its surface is covered with rugosities, swells with dry crackling crust, brittle excrescences like hardened bubbles of mud, with dark holes and depressions among them. Here and there we cut across small creeks of such ground and see the leading camel flounder before he can get a foothold, and then with bent head proceed cautiously, feeling his way. There is no danger for those that follow when they see that the ground bears the one in front. But between these brittle inequalities all go staggering as if they were drunk. After a downpour of rain all these dry rough spots must be turned into slough, where one would sink as into syrup.

At mid-day we crossed a furrow 1 foot deep and 30 feet broad, with plenty of saxaul, and then were turned by a desert creek still more to west-north-west and taken away from our goal, the southern hills. The desert stretched westwards as far as sight could reach, and we looked in vain for a place where we could venture over to the southern shore. Rain-clouds hovered over the southern hills which after half an hour had totally disappeared, and Kuh-i-nakshir as well, which we had sometimes before

View towards the East and South-East from Kuh-i-nakshir.

Kuh-i-nakshir towards North-West and North

instead of behind us, was enveloped in a dense veil of cloud. Sometimes we were surrounded by the level Kevir on all sides, and we were a prey to a feeling of insecurity and anxiety; perhaps we were on a peninsula which would soon project out into a bed of mud, and perhaps we should be obliged to go all the way back and try the northern route through Cheshme-Kerim.

Kuh-i-nakshir, with its flat slopes and detritus cones, forms a blunt peninsula in the desert sea; its soil is firm and solid to the tread, because it rests on a framework of rock and detritus. With or against our will we have stumbled on this peninsula, and instead of proceeding south-eastwards, have to follow the margin of the solid ground back to the west. Here the Kevir is absolutely sterile, shrubs cease immediately the firm ground comes to an end, and not even stalks washed down by water lie out on its surface. Sometimes we cross a small flat where mud, carried down by rain, has consolidated into a hard compact surface. A shallow trench is half white with salt, half dark with mud, and on this deceptive surface is seen the fine grooving produced by running water. All day we are preceded by two scouts, who feel their way with staves. We often see the foremost of them avoid turning up a creek and try the Kevir instead, but before he has gone far he sinks in, begins to reel, and makes haste to turn round. Owing to the soft and dangerous ground our route is more tedious than usual, and we become more tired than in drift-sand, where at least we have no fear of being drowned.

The south-eastern projection of the southern hills appears again, hovering a good distance above the level ground, owing to mirage, and looks like a cape,—a Cape Finisterre, running out into the sea. It is impossible to estimate the breadth of the belt of desert; to the eye it seems as if it reached up to the foot of the hills.

As we seemed to be marching more and more at random, I set out to reconnoitre myself, went on ahead, and soon found an excellent camel track running south-westwards and gradually turning more and more to the south. The footprints were quite fresh, and the path had been used that very day or the day before. To the right

was true steppe, to the left the Kevir, but after a while I found myself amongst luxuriant saxaul bushes on all sides. Here the ground was hard and covered with fine gravel. As the camel track continued south-westwards, I left it on the right and made southwards. The caravan was so far behind that I could scarcely hear the bells. After a while I found a small track which led down to the shore of the Kevir, and seemed quite reliable where it disappeared in winding course over the flat desert. Wondering whether it were the Mulkabad route I had heard of, I waited for my men, and after a short discussion we decided to begin the crossing. I mounted again, the scouts went in front, and the heavy caravan moved over the barren insecure ground.

The path took us south-south-west, but it often made bends to avoid dangerous spots with yielding ground. After a while we crossed a trench 20 yards broad and 3 feet deep, which was evidently the estuary of a river-bed running from the west into the Kevir. In its bottom, white with salt, were several puddles of bitter water. Fortunately the ground bore even here, though it was soaked with water and became a track of mud after the camels had passed. Nevengk tried the water, but shook his head and ran off sniffing, and somewhat vexed to find his thirst mocked by the clear water.

No termination of the arm of the desert can be seen to the west, and we cannot perceive how far it extends to the south. Perhaps we shall not cross it before evening—it would be cheerful to camp in the middle of the Kevir, where the ground may be firm enough for a rapid passage, but would not bear a more lasting burden ; there would be a danger of the whole camp sinking into the mud during the night. After we have crossed a trench with its bottom paved with hard salt, we see before us a number of small dark spots which soon prove to be grazing camels, so that we are not far from the southern shore, and the strip of the Kevir we have crossed is quite narrow. Like the preceding, this trench also runs north-eastwards, and we see its bed winding out for a considerable distance into the Kevir before it thins out and vanishes in the depression.

After an hour's wandering over unstable ground we landed on solid ground covered with gravel, where camels were grazing among close-growing shrubs. Just as we were pitching the tents for the night, drizzling rain began as on the previous day, and the evening was gloomy and dark. To the west shone a camp fire, where no doubt the herdsmen who tended the camels were resting. The height was 2454 feet.

Some loose material met with on the day's march consisted of remarkably fine fossilized coral.

CHAPTER XXIII

ALONG THE WESTERN MARGIN OF THE KEVIR

On January 17 I was awakened while it was yet dark; Mirza placed a candle on a box and brought in a mangal of fire and a basin of warm water, which was very necessary to rouse me up from the peaceful world of dreams and prepare me for the morning cold of the desert which lay awaiting me outside my tent. We had marched 18 miles the day before, and had as long a distance before us this day. The morning was fine; the clouds showed a varied play of colours and a charming relief, not compact, grey, and wearisome as hitherto. Cautiously and timidly two herdsmen came to our camp and gave us some information. They knew the Mulkabad heights to the N. 2° W., and it is always advisable to check the names we have already heard. They called the hill to the N. 49° W., Bend-i-arabieh, the name Gulam Hussein also knew it by. A small isolated elevation on this side of Mulkabad they called Kutak, and pointed out N. 81° W. the knoll where the spring Sefid-ab, or "white water," is situated; they pronounced the name Sefid-o. To the south they mentioned Cha-i-shems, S. 40° E. Cha-bolasun, and farther off Puse-i-dom; south-west lies Cha-shur, the "salt well," not far from the camp, and farther off in the same direction, Cha-gur, the "well of wild asses." It is 13 farsakh south-east to Cha-busurgi, or the "great well." These herdsmen were tending a hundred baggage-camels belonging to a rich man, one Jaffar Agha of Mehabad. In the spring they would recommence their work in caravans after resting through the winter.

With the panorama of the southern hills to the right, and the Kevir at some distance on the left, we proceed east-south-east in the pleasant morning weather. Between the two stretches an extremely flat belt of steppe, with fine gravel and scattered shrubs and shallow erosion furrows running north-east. We follow a path which seems to be seldom used, at least it is torn up by furrows in which water has not flowed for long. It is a good day's journey to the southern hills, and the visual angles to their summits therefore change very slowly. Here also the Kevir has a sharp boundary, and along the whole day's route there runs a real shore line between the barren surface and the steppe. We follow it closely all day, and have a boundless and monotonous view over the salt desert,—a lake never rippled by the wind, and where no melodious billows beat against the strand.

Steppe shrubs grow very freely, and among them camel tracks cross one another in every direction. As in the Lop desert, we often find traces of lime mixed with sand, which is deposited round the stems and stalks of certain plants, and falls to pieces when touched. On the stones are often seen etched markings, and as at the foot of the hills the twin ridges produced by deflation. From the strand margin, where we march, the steppe rises slowly to the southern hills, and is intersected by a number of small shallow trenches, which are rather to be conceived as divided delta arms of a more concentrated drainage-channel higher up. One of these, larger than the rest, evidently comes down from the lowest part of the southern hills, which seem to be cut through by a valley.

Hour after hour we advance along the shore exactly as yesterday, but under more favourable conditions; for the ground is hard and level, and the strand line is less irregular. Far to the north, on the other side of the Kevir, is seen a faint outline of the hills there running out in points, and I am grieved that I have had no opportunity of laying down the sharp boundary of the Kevir at their foot also; but I console myself with the reflexion that I cannot do everything. On the southern hills still remain fields and streaks of snow, less exposed to melting as they

face north. But down here, on the steppe where we are travelling, the sun is burning, and the ground is heated; with the thermometer at 55.8° at one o'clock, it is quite a different climate from what it has been hitherto. And yet we are in the middle of January, the coldest time of the year! What will it be like in spring when we reach Tebbes and Seistan? Probably blazing and suffocatingly hot. All the way to India we go to meet the sun, to the south-east; the sun is now a grand mark to steer by, and every morning it will give us our course for the day's march. Every day is for us a step nearer spring, so much the longer that we are advancing south towards warmer regions. Now we could not wish for finer weather, and we are fortunate in escaping from the heavy fog of winter; but the time will come when we shall look back with regret to the cool snowdrifts in the fissures at Mulkabad. The past always seems in our memory brighter and better than the toil of the moment. Slowly, almost hesitatingly, the camels move along; they carry us gently but surely to our journey's end, and therefore we love them for their admirable patience. Even the monotonous clang of the bells is delightful, for it ticks off the seconds from the time that separates me from India.

At eleven o'clock we are in full summer, and long for the afternoon hours, with their freshness and their cooling breeze. Now I am perched up on the top of my tall, swaying bearer, and I have the sun right in my face, and feel as though I were sitting before a flaming fire. One of the men begins to sing a melancholy ditty—sing on, old fellow, perhaps it will shorten the way.

Sometimes a suspicion of driftsand is heaped up in the lee of the large shrubs, but otherwise there is no trace of sand desert, though all the conditions necessary for its formation are present. Fine yellow mud often lies at the bottom of erosion furrows, which after drying has fallen into concave flakes. It is such fine material which in course of time is carried by running water into the Kevir to fill it up and level its unequal depressions. The zone of the Kevir which runs close along the shore is of a yellow colour, and forms a kind of transitional stage from

the steppe belt; but farther out the surface of the Kevir becomes darker, and in the distance gleams a pure white streak, beyond which is seen a thinner black line which looks like water. One would gladly believe that the thin surface salt in the small creeks nearer in front of us are collections of water; but we are deceived by the mirage, the light and distance, and by the perfect flatness of the desert.

Mirage plays us many pranks in this level country. The hills we lately saw rising like islands out of the desert have quite disappeared to-day. And beyond a summit of the southern hills, which is seen due south-east at mid-day, and seems to be the extremity of the little range, crops up a row of small hillocks which appear to float a little above the horizon. It is again mirage which produces this illusion, and after a couple of hours these knobs melt together into a continuous chain, low and light blue owing to the distance. Even the clouds deceive us, and when they sometimes lie low down one is inclined to take them for hills. In the afternoon they lie only in the south-east, the whole sky elsewhere being clear.

A strange camel goes for two hours in front of the caravan; he has neither halter nor cloth, and one is inclined to take him for a wild one. He has, doubtless, strayed from a herd, and we pass him and get rid of his company, when Nevengk rushes at him, and he stops to meet the attack.

During the latter part of the march the shore becomes more irregular, and we cut across the innermost points of several small bays; one of them is bounded on the east by an equally sharp-pointed peninsula, in the prolongation of which four small holms of firm soil stand up in the Kevir just like islands in a lake. Two antelopes are grazing on the steppe, and Hussein Ali, who is usually lazy and has a wonderful capacity for lying asleep on his camel, becomes wakeful and animated immediately there is a chance of sport, but he blazes away at random, and there seems to be no danger to the wild animals that come within range of his gun. It was very different among the Russian and

Buriat Cossacks, who never fired unless they were sure of hitting.

Now the steppe becomes more continuous, and the shrubs grow close together, and consequently the tracks of camels are more numerous, and we suspect that a spring is near. If we turn round and look north-westwards the steppe we have traversed seems to be under water—another trick of mirage. We are warmed by walking and enjoy the light breezes which now and again sweep over the country from the south-west. In several furrows, where streams are wont to flow after rain, small crescent-shaped banks of earth have been thrown up; in this way the herdsmen collect water, damming it up into a pool which will last a couple of days, and save the herdsmen and camels a journey or two up to the nearest spring at the foot of the hills. Such dams are called *bend-i-rejab*. Wells are often digged in the furrows for the same purpose—to take advantage of the rain-water.

Now it is close on four o'clock, and we have listened to the clang of the camel bells all day long and are eager to encamp. The steppe forms a blunt projection into the Kevir, and a large number of camels are wandering about among the tamarisks and other steppe vegetation. Before us, to the south-east, is seen a man, probably a herdsman, and we decide not to encamp until we come up to him. Gulam Hussein thinks that he has his *mensil* or camping-ground here, and that he is about to drive his camels together to lead them to a spring in the morning. The place is convenient, with grazing and fuel in abundance, but there is no water, and our camels have not drunk for three days. The supply of water left in our skins is amply sufficient for our own use, though stale and musty; but we have no choice on the march.

When at length we reach the herdsman we come to a halt; the men make the camels kneel with a sharp shout and a quick tug at the muzzle-rope; the ropes round the loads are loosened and our boxes and provender sacks are deposited on the ground. The usual work proceeds smoothly and quickly, and while the other men pitch the tents Avul Kasim lights the first fire. Height 2539 feet.

The herdsman told me that he and three comrades were watching 200 camels belonging to the ketkhoda or headman of Mehabad; in spring they would be used in transporting goods between Shiraz and Teheran. His geographical knowledge was not extensive, but he had travelled by the road running from here to Semnan through Mulkabad, Tallhe, Cha-mishmess, and Kuh-alafí; the last-named hill is the one indistinctly seen to the north of Kuh-i-nakshir. To Semnan he reckoned it 25 farsakh. He knew the following names in the southern hills, in order from west to east: Cha-shems, Chang-kollah, Cheshme-bolasun, Sheidai, and Meedi south of this day's camp, as well as Lakko (Lak-ab). Cha-shur and Cha-gork are springs to the west-south-west, and Dom is a district in the south-east. To the town Anarek, which belongs to the province of Yezd, he reckoned it only two days' journey.

When I asked if he considered it possible to cross the Kevir from here towards the north he exclaimed, without the slightest hesitation, "No, God forbid; you have only to go no farther from the shore than a shout can be heard and you will sink in the mud and be inevitably lost." No water can be seen, but it stands everywhere near the surface. He had never heard that any one had made the attempt; if any one would cross the Kevir northwards he must follow the old known routes through the desert. Two such routes run from Jandak, one to Husseinan, the other to Turut. Twenty years ago he had seen a European in this neighbourhood who had come from Kerman to make his way through Mulkabad to Teheran, but since then he had heard of no other European travelling from that direction.[1] As it was getting dusk the man went off to his comrades, who were waiting for him at the edge of the desert, but he promised to return next morning to show us the way.

This night the temperature again fell a little below freezing-point (30.6°), and the morning was dull, windy, and cold. It blew very strongly from the west, showing that the sky could be covered with heavy clouds even with the wind in this direction. Hitherto clear days had been

[1] Probably Lieutenant Vaughan.

the exception, and it was evident that an overcast sky and precipitation were characteristic of the early months of the year. As we began our march at eight o'clock a short but fine and thick shower fell, and of the southern hills only the lower parts were visible. The four herdsmen came to visit us, and each received a drink of water; one of them was to show us the way to the nearest spring while the others drove their camels to Cheshme-bolasun.

We steer south-eastwards, directing our course to a point below the most eastern peak of the southern hills, and as we are therefore leaving the margin of the Kevir, the lowest depression in the whole country, and making for the foot of its southern bounding hills, the ground rises, though slowly, throughout the day. The wind increases in strength and pushes behind. We leave on the left hand the relatively fertile steppe belt, its yellow colour showing down below. For a while the ground is quite sterile and intersected by innumerable trenches with pebbles, but afterwards shrubs appear again, though meagre and few in number; the ground is hard, and detritus increases in quantity as we approach the hills obliquely.

A steep hill, which we saw as long ago as yesterday, now comes into sight among the clouds to the S. 50° E., and is said to be Kuh-i-busurgi. The nearer we approach the southern hills the more the ground is cut up into trenches, though they are seldom 3 feet deep; the details of the hills appear more and more distinctly, their lights and shades, fissures and declivities. Down below, on the left, the Kevir expands its boundless surface with changing shades and dirty white fields of salt; the impression is more vivid than ever that we are riding along the shore of a large lake with its level surface lying between the hillocks of the beach and fragmentary hills. And yet it is only a slough of gigantic dimensions we see before us. The boundary between the cones of detritus and the dark Kevir is exceedingly sharply defined; up here we seem to see the outermost slight fall of the cone, of one or two degrees, pass into the level surface of the depression. Yet we can notice here and there two transitional zones, the first where the detritus cones merge into the level, comparatively richly covered steppe,

and the other quite narrow, which is of a yellow colour and strictly belongs to the Kevir. It may be supposed that both the colouring and breadth of the different belts change not only with the time of year but also in different years, depending entirely on the precipitation; and the herdsman confirmed this view. Our guide affirmed that if it rains hard and continuously in the Kevir and its environs the whole salt desert becomes thoroughly soaked and softened, and that then water lies exposed over large tracts for one or two weeks. Now, however, open water was a rare occurrence, though it might be found in the deeper depressions. This man, like the herdsmen at Tallhe, called the great Kevir Rig-i-jin, implying thereby that only spirits dwelt in its interior. The word means "The sand desert of evil spirits."

To the east now appear again faintly the low ridges bounding the western Kevir in this direction; they are evidently situated on the protuberance which separates our basin from its next neighbour.

After three hours' march the trenches become rather smaller for a time, and therefore the ground is more favourable for travelling; the steppe shrubs here grow closer together. We leave on the right Lakko, or Lak-ab, a valley with a salt spring at its mouth and a sweet-water spring higher up. We hesitate a while whether we shall go thither, but it lies too far from our course, and the ascent is too steep and would only tire the camels. In the eastern parts of the southern range of hills there are three other sweet-water springs and three in Kuh-i-busurgi.

In this locality the Kevir forms a semicircular bay or extension to the south which forces us to steer south-eastwards and then, after we have passed it, we turn again to the north-east. We must, indeed, go round it, for it is certain that we cannot cross it, though our herdsman had heard of a man who long ago ventured on the attempt with a camel. It is still far to the end of this bay, and it is interesting to follow the hills; in the midst of the Kevir there is nothing to see but briny mud. It is quite possible to avoid this inlet and the circuitous paths

altogether, when one is going to Tebbes, but when a traveller's destination is Jandak, as in our case, he must follow the margin of the Kevir. The herdsman believed that in former times a direct track led from Dom, our Camp 12, through the Kevir to Jandak, but it was now out of use; the last time it had been used was some years ago when two men with two camels traversed it and took quite forty-eight hours on the journey. We should have saved four days if we could have used the desert route and cut across the large Kevir bay, but the herdsman advised us not to make the attempt, for he considered it dangerous without sure guides. And even with guides such an undertaking is very risky, for the stability of the salt desert varies in different years, and where one can walk in a dry year one sinks in another year. There is also a risk of being stopped after covering three-fourths of the way by the insecurity of the last fourth, and having to turn back.

Contrary to the statement of our informant at Kuh-i-nakshir, our present herdsman maintained that a direct path ran to Jandak from a point situated between Cheshme-Kerim and Cheshme-dosun. Had we found this way we should already have been at Jandak, but I did not complain, for by following the edge of the Kevir I was able to trace its sharp boundary on my map. Besides, such information is generally uncertain, and the herdsman had never been himself into the Kevir and hoped never to go there.

Our hill at Nakshir grows faint behind us and appears as a dimly marked even outline. Between us and the blunt peninsula of Kuh-i-nakshir lies the Kevir, stretching east and north-east like a land-locked sea. The higher we mount the better we can survey its boundless surface with its various shades from dirty white and yellow to brown and black.

Slowly and surely we draw near to the promontory we have been making for all day long, and near it the ground becomes for a time more favourable, the pebbles cease and are replaced by coarse sand, among which steppe shrubs grow more freely and camels graze. But the

ascent becomes steeper and our progress slower. The old camel, which has shown signs of exhaustion for several days, is now worn out, is not loaded, and at last has to be led in the rear by Habibullah. We struggle higher towards the top of the screes at the foot of the hills, and again the ground is fissured by troublesome trenches which have to be crossed. At last we double the point and turn almost due south. Before us appears a gap between this hill and the next, which is called Kuh-i-busurgi. On a bank of pebbles and sand stand several shelters with stone walls in front and roofed with twigs and steppe shrubs, where the flocks are driven for the night; now they stay in a valley up in the hills, as a herdsman we found in one of the folds told us.

The ground is now heavy for laden camels, the steep declivities are bestrewn with sharp-edged pebbles, and a furrow we cross below a yawning valley mouth is 20 yards broad by 30 deep; it descends from an opening in the hill, and spreads in delta form over the slope of the screes. Several other smaller trenches have to be crossed before we at last see the yellow grass around the briny spring of Dom, where we encamp at a height of 2999 feet.

Cheshme-i-dom, or "end spring," the farthest spring, "the spring at the end of the hill," reminds us of the one at Mulkabad, and comes up out of soft ground; in its drainage channel a series of small basins, 3 to 10 feet in diameter, have been excavated to make it easier for sheep and camels to drink. Relics of their visits lie around, and there is a smell of animals all about. The water is so salt that men can only make up their minds to drink it in case of sheer necessity, but our camels, who have not drunk for four days, put up with it and stand a long time sucking it up and looking about. Then they are driven down to their straw, of which there is a supply sufficient for only four days.

My first care after the camp has been set in order is to send for any men that can be found in the neighbourhood, to give an account of all they know of the geography and climate of the country, of the great salt desert and of the routes to adjacent districts. It is, however, not

always easy to understand the pronunciation of the herdsmen; the language is altered in their mouths, they say *o* instead of *ab* and *saus* instead of *sebs*, and Mirza has to translate the names they cite into proper Persian. Still, by these means we extend our knowledge of the country, though in most cases it is impossible to insert the names in the map with any degree of accuracy. The herdsman we fell in with at Cheshme-i-dom knew of 28 springs north and south of the small range we had skirted during the day, and near Kuh-i-busurgi.

Regarding the climate, we learned that it is considered much warmer than at Kuh-i-nakshir, though the distance is so short. This seems to indicate that the Kevir is a climatic boundary, as we shall also find farther east. Thus, for example, there had been no snow this year at Dom; the heavy snowstorm we had experienced a few days before had not extended so far; even in winter the precipitation takes the form of rain, and if it does snow occasionally, the sheet disappears very quickly.

The flocks of sheep now grazing at Dom belonged to an iliat chieftain, Mad Buluch; they counted 400 head. A herd of 200 camels belonged to the ketkhoda of Mehabad, of whom we had already heard, and who is evidently a man of property. Of these, 100 camels had foals which would remain three years with their mothers, and then be gradually trained to carry loads. A certain number of young animals are taken yearly from the stock of camels and drafted off to the caravans. The herd is brought to Dom in the middle of October, where it grazes for eight months, and then in the warm season of the year is moved to Bakhtiari, that is, the part of Luristan inhabited by Bakhtiari. Mehabad, near Ispahan, which we have heard of several times, seems to be a place where cattle-breeding is highly developed; its inhabitants own 7000 camels, which, as a rule, work only one year and rest the next. The same town has also 100,000 sheep.

We sat outside my tent and looked northwards over the Kevir, and we saw the boundary of the firm land with its peninsulas, points, and small holms, and its ragged edge along the shore of the mud lake. All these projections

have a harder structure, either of rock in a more or less weathered condition, or of fragments and splinters from the screes that fall towards the bottom of the depression. It is an exceedingly singular and fantastic landscape, and, as before, we find that the herdsmen have a great respect for the interior of the Kevir. The Dom herdsman said that when continued drought prevails, the surface of the Kevir is covered with a harder crust which bears well, but that, all the same, it would be very dangerous to venture over it with a large caravan. He compared it to a sheet of thin ice on a morass, and said that a caravan would be in danger because the crust might give way altogether beneath the camels so that they might be all drowned at once. But he had also heard that in the middle of the Kevir, inaccessible to any human being, there were oases with fragrant grass, waving palms, and sweet clear water. Like most other peoples, the Persians have a capacity for picturing the unattainable in very attractive and charming colours.

The tired camel reached the camp, but in a very feeble condition. Though, like the others, he had abstained from water for four days, he would hardly look at it, an indifference which is regarded as a very bad symptom. Loaves were kneaded for him, but he had no appetite. In the evening the three camel drivers sat round a fire in the open air, mending defective pack-saddles and shoes, talking and smoking, and curiously lighted up by the red glare of the flames. They were rather tired after the day's long pull uphill when they went on foot, while Mirza and Avul Kasim did not take a step. It is a great thing that all are contented and well, and hitherto I had not heard an ugly word in the caravan.

CHAPTER XXIV

WITHOUT GUIDES

We had not gone very far on our new day's march when it was announced that the sickly camel was quite done for and could go no farther. He really looked so thin and miserable that I thought that no better service could be done him than to put him out of his misery before another day's suffering; but the herdsman who accompanied us begged us to leave him alive, for he knew how to treat him, and after resting a time in the company of his fellows from Mehabad he would recover. He was released from his muzzle-rope, removed from the line of the caravan, and he stood lonely and abandoned, looking after us when we were hard-hearted enough to leave him to his fate.

The sky is overcast, but soon clears up, and the air feels fresh and cool after a temperature of 28°. We steer south-south-east to march round the southern extension of the Kevir, part of which is visible to the east-north-east. On the left we have a broad flat valley or depression between the chain we have hitherto skirted and Kuh-i-busurgi, and to the right we have still the prolongation of the former, the range which we called the "southern hills," and which we first saw from Kuh-i-nakshir. Here we are passing through a district called Seile-saus. At a small knoll with a waymark a fold is seen, and the herdsman runs to see if there is any water. After he has signalled with his hands in the affirmative, we go thither with a camel and a sheepskin. A small pool of dammed-up rain-water from the last showers remains after the Mehabad camels have drunk from it yesterday. There is just enough

of it to fill one skin and then there is a bowlful left, but this water tastes sweet and pleasant compared with the curious fluid we have had to put up with lately.

The mound was composed of a light red quartz porphyrite, lying in flakes and shells, which afterwards was with us all the way. The hills seen to the south-east our guide calls Kuh-i-cherro, Kuh-i-anarek, and Kuh-i-ashin. Ali-Khani is a small dark ramification on the left hand, named after a Baluchi chief who once lived as a robber in this wilderness.

After having procured sweet water for a night we have no reason to follow the foot of the hill among pebbles and countless small blocks and holes, so we go down the slope to where the ground is level, the furrows quite shallow, and the shrubs luxuriant; the pebbles, too, are small and do not hurt the camels' foot-pads with their sharp edges. Our herdsman was a little nervous at leaving the proximity of the hills with their springs, but the water-supply in the sheepskin pacified him.

The hills to the right become lower and we approach Kuh-i-busurgi. In the mouth of a valley half a farsakh off there is said to be a sweet spring called Ris-ab-i-Maryam, so named after a woman. There is no path; the route skirts the hill where it is near to the springs; we march where it seems to us best and most even. Two gazelles gaze at us with curiosity, and would lose their lives if we had good marksmen with us; the two Cossacks blaze away as usual, and then Nevengk comes and spoils the sport by chasing the flying animals.

It soon proves that the ground below, at the foot of the hills, is not so excellent as it seemed at a distance, and the farther we go the more troublesome it becomes. First we cross a furrow 200 yards broad and 10 yards deep, with steep erosion terraces very difficult for our baggage camels to surmount, and soon after another furrow of the same kind. Near it is a well called Cha-mirza, which, like most of the other names we heard in this district, is marked on the Russian map, which I study daily. Between these drainage channels the country is intersected by a number of smaller

trenches; they cause great loss of time, and are trying to our patience, and we have often to make détours to avoid them.

The lowest offshoots and knolls of Kuh-i-busurgi now hide the southern parts of the Kevir, which entirely disappears when we move for a time up a large erosion bed, and are surrounded by eminences on all sides. In another smaller furrow some pools of rain are left, and here a few camels graze. At the sides stand steep terraces of pebbles. The ground then becomes softer, and small flat patches of kevir lie between the yellow mounds; they have quite the same appearance and the same yielding ground as the great Kevir, but stand a couple of hundred yards higher, and are therefore quite cut off from it. Here also, in one or two furrows, water is left from the last rain. When we come to the top of a small height with a wider view, we find that Kuh-i-busurgi and Kuh-i-ashin are really a little nearer than before; we make terribly slow progress in covering the considerable distance between these hills, which are characteristic of this part of Persia. Without a sign of a path we march at haphazard between mounds begrown with shrubs and saxaul, and the country becomes more undulating. An eminence to the right bears the name of Kuh-i-guchi. On the south side of the Kevir's bounding hills we notice Kuh-i-Gulam-Ali and the spring Seile-sefer-ab. On the western horizon stands a small but comparatively high elevation called Gudar-i-keftari, and in the same direction lie the camping-grounds of Cha-Ali-Khani and Kuh-Ali-Khan.

Two herdsmen were housed in some cabins of earth in a ravine, protected by mud walls and partly roofed with twigs of steppe plants. Another resort of the same kind is called Demagha-i-guchi. After a march of 13½ miles we encamped at the foot of a low hill with a cairn, and here also we found water so that the camels could drink. Near by were five folds and flocks of sheep, of which four belonged to Jaffar Agha and one to Mad Buluch; in all they contained 2000 sheep. There was a smell of sheep not only near the penfolds, but often along the way where

the animals had lately been grazing. At this camp, No. 13, the locality is called Gabr-i-Haji-Nezer, after a man from Sherab who died and was buried here. On the next day's march we should come across a track leading to Ashin, Jandak, Anarek, Yezd, and Kerman, which comes from Teheran and Cheshme-i-bolasun. Past Gudar-i-keftari, or the "defile of rock pigeons," a route runs to Kashan and Mehabad. Below Kuh-i-busurgi, where there is a hill Gerdane-barike, there are no roads at all.

Two of our camels are a little weak, having sores on their dewlaps below the chest. One would suppose that this part would be little subject to friction, but the fact is that our camels lie down for as long a time as they march with their loads or graze round the camp, and if the ground consists of pebbles and coarse sand the dewlap is exposed to friction, and all the more if the animals are thin. They have had very hard work ever since they left Teheran, and the fodder they have obtained has been all too scanty. Now, however, the loads are considerably lighter, for we have only straw for one day and three sacks of cottonseed left, and we no longer carry water with us. Seven of our camels, the large stallions, are still in excellent condition; the other six are a little thin, but there is nothing much the matter with them. We intend, however, as soon as an opportunity occurs, to let them rest a while and feed themselves up.

A journey through these parts of the interior of Persia must necessarily be very monotonous and colourless. We leave our camp at the foot of a small sterile and fragmentary hill, and camp in the evening at another. And between the two we cover 14 to 20 miles of heavy, dreary road, through pebbles and trenches or soft soil. No vegetation is seen but the poor shrubs, tamarisks, and saxaul of the steppe, no towns or villages, no human beings but herdsmen. Nothing else can be expected here on the margin of a salt desert; but sooner or later we shall, nevertheless, come to a true oasis. While I draw a panorama of the hills nearest to us, which are yet so far off, my tent is set in order, and when I have taken my

bearings I occupy it. It is furnished every evening in the same way, is lighted dimly with a piece of candle, and warmed with a mangal of fire. This is my airy prison-cell, where, nevertheless, I find myself very comfortable. We have many a step to take before we come to the eastern frontier of this blessed Iran, the western boundary of which I crossed with such enthusiasm at Julfa.

But I have nothing to complain of. In this way one learns to know a country though one misses its inhabitants. It is worse for the herdsmen whom fate holds captives round these poor hills. The camels and sheep they tend are not their own, but they are responsible for their safety. I cannot imagine anything more dreary, uninteresting, and monotonous than to pass one's whole life here on the edge of the Kevir, living on meal, roghan, and brackish water, without knowing any other diversion than the change afforded by the annual migrations to and from Luristan. For eight months they remain sedentary, and see no one but their three or four comrades. What do they think of? what do they talk about? how do they pass the weary time? No; a rapid journey along the foot of Kuh-i-busurgi is welcome enough, but I should shrink from a permanent residence at its foot as a shepherd among shepherds.

In the night before January 20 the temperature fell to 23.2°, and therefore it feels cool in the morning; owing to the greater absolute height up here among the hills it is colder than down below at the Kevir. The ground is white with hoar-frost, which this time, curiously enough, has left the vegetation untouched.

We at first marched southwards as yesterday, and gently ascended to a ridge consisting of light red quartz porphyrite. After little more than half an hour we were at the road to Ashin, a very well-worn path, which we had only to follow. The herdsman therefore bade us farewell, to return to his lonely life, and he received 2 tuman for his trouble. He informed us that we had to pass Kafer-kuh, Cha-penir, Cha-gabi, Dom-Abdullah, and Sagh-ab, and that Ashin was situated at the western foot, and a good

bit on this side, of Kuh-i-churro, a flat-topped hill which is seen to the east and has the form of the coachman's box on a hearse, a resemblance increased by its dark colour and the white streaks of snow on its flanks. If we made straight for this hill we could not help soon catching sight of a village, the site of which he indicated in a light belt on this side of the hill. Still it was careless to let the man go now that we had no water; but he assured us that we could not lose the way, for it was the main route from Cheshme-i-bolasun through Ashin to Anarek, Yezd, and Kerman, and so he vanished from sight in his tall black lambskin cap and his wide brown burnous.

From the hilly ground we go down gently to a small kevir hollow, where the ground is wet and treacherous and the camels stumble; it is crossed by a waterless furrow with a fall impossible to determine; probably, however, it runs to the south-east, where a large longitudinal valley is discernible. At the farther side of this miniature kevir lies a dead camel, which has closed its career only a couple of days before.

To the south and south-west is now displayed the Nain range, a fine but a distant and faint panorama. But it is grander and more massive than the chains we have hitherto seen, and in three places culminates in flat snow-covered swellings, but has no sharp peaks. Between us and this range evidently lies a belt of desert. Like almost all the ranges in Persia, the Nain hills run from north-west to south-east; only in Mazenderan and North-western Khorasan do they lie more nearly east and west. In Afghanistan and Baluchistan the mountains stretch from north-east to south-west. If we consider the whole of the Iran highlands we shall find that the ranges hang like garlands to the south, a configuration which is reflected in the curve of the southern coast and in the form of the Persian Gulf.

Our road is excellent and passes over level or gently rising, slightly undulating ground, where the shrubs are more scattered than among the hills. The ground is hard and bestrewn with small rounded pebbles resting on an under layer of yellow compact soil. Before us is the

relatively large but narrow Ashin hill, surrounded by several other ridges and backs, and beyond it lies the town of Anarek. To the east and a little north, the Busurgi chain shows dark and gloomy; it looks much lower than from the Kevir, because, from the salt desert, we saw all its screes foreshortened, while now that we are on the plateau extending between Busurgi and the Anarek hill, the relative difference of height is less and the chain is more like a series of hills.

When we came down to level ground the pace changed and the bells rang louder and in quicker time, and as energetically as though it depended entirely on them whether we should reach the town that evening, or not. The weather was good, fresh, and cool, a light breeze blew in our faces, and half the sky was veiled in clouds. All the furrows here fall to the south and south-west; but we turned eastwards, leaving some small hillocks to our right. Then we mounted in the direction of the Busurgi hills over sandy ground abundantly clothed with shrubs.

The hours fly by to the ring of the bells, the sun mounts higher and the day becomes warmer, though not above 44.8°, and the thirteen camels carry us deeper into the heart of this desolate Persia. Round about us extends the monotonous country with its colourless shades and its flat undulations, where even the hills make but a slight break in the horizontal evenness, and where the eye is very seldom caught by vertical lines and more vivid sculpture. How different from Tibet, where, even in the plateau country, lakes framed in mountains present so much charming variation!

We are on a road and follow closely the tracks worn in the ground, but we meet no traveller, and see all day no other life than—the dead camel. In one place the road branches, and we are at a loss which of the two tracks to follow, but choose the right. After a while Gulam Hussein becomes doubtful, goes off to the left and then makes us a sign to leave the path to the right, and so we move aside at a sharp angle.

At mid-day Kuh-i-busurgi displays its southern outline, rugged, desolate, and dark; to the left of our route and

through a gap between the low ridges south-south-west we have a free view off to the westernmost of the three small masses of snow we have before seen on hills near and beyond Nain. A thin sheet of cloud, light as gauze, sweeps over the sky and mitigates the heat of the sun, which, however, is by no means oppressive up here among the hills.

I nod and sway backwards and forwards on my trusty bearer, and my thoughts wander off to dreamland; only half conscious of the monotonous caravan life, I watch the naked hills unroll beside me and see the map sheet before me gradually fill up with routes and the adjacent topography; but otherwise my fancy mounts up into the sky with the sound of the bells and plays with all the plans, fortunes, and adventures which I look for in the far-distant East and in another land. Conversation has again ceased as usual during the morning's monotonous march, and the Shiites sit half asleep on their camels; occasionally a pipe is lighted and blue smoke-rings curl round the lambskin caps of the dozing riders. But when breakfast time comes they wake up. Usually there is a halt of ten or fifteen minutes, but to-day we do not spare the time, for we are looking forwards with some expectancy to the town of Ashin, where we hope to be able to replenish our stores for both the two-legged and four-legged members of our caravan, and where it will be delightful to camp for once near human beings. Meshedi Abbas now sets up a package and distributes bread and water to his comrades. The lazy fellows on the camels' backs do not take the trouble to dismount, but eat their simple meal on the march, which certainly facilitates swallowing if not digestion. They seem to hold the water-jug a suspiciously long time to their mouths, and do not take it away before the bottom is turned up to the sun, but that is of no consequence—in Ashin we shall get water enough.

The whitened skeleton of a camel lies on the way, reminding us of the transitoriness of all things. Not a sign of life, not a bird, only a hare started up from the steppe at the commencement of our day's march. But everywhere are seen tracks of camels and sheep, which have been

feeding here. We still ascend very slowly, and still the outline of Kuh-i-busurgi hides the lower parts of the more distant summits which rise above it, and as obstinately the crown of the slopes conceals the country where we expect to see the town of Ashin, the first since Kerim Khan, the first oasis, where we intend to repair and complete our equipment and replenish our supplies. One, two, and three o'clock comes, but there is not the slightest sign of the town; here there is nothing to indicate the proximity of a settled population, no flocks grazing on the steppe, no smoke rising into the air. The steppe stretches out its flat surface among the hills, silent, empty, and mysterious, and the route we follow is equally incomprehensible; where does it lead to? can it really go to Ashin? I suspect that we are too much to the north and that the hill resembling the box of a hearse is too much to the right. I impart my apprehensions to Gulam Hussein, but he thinks that it was another hill the herdsman alluded to. "Beyond that dark ridge yonder to the south lies Ashin," I say, but Gulam answers, "It is not likely that the town lies hemmed in by hills; probably we shall soon see it on the level plain."

And so we continue on our way through the never-ending longitudinal valley, between the hills of Busurgi and Ashin. A caravan has recently encamped beside the way, and we can see in the sand that the camels were laden. Here a cairn is erected and a handful of fuel still lies at the camp. We ask ourselves whence this caravan came and where was its destination? Possibly it was travelling between Ispahan and Jandak; but why has it encamped on the waterless steppe if the town Ashin is near? It is evident that we have gone astray, and our wisest plan will be to follow the path, for sooner or later it will guide us to some spring or well. It is clear that we have quite lost the direction of Ashin; it was only 2 farsakh thither, and we ought to have been there when the sun was at its highest. We have no more water than the dregs left in our clay jugs, and therefore we must trust to the unknown path. It takes us by degrees in a curve to east, north-east, and north-north-east, up among the foot-hills of Busurgi, and soon enters a well-marked dell.

76. An "Abambar" or Water-Cistern.

77. Opium-Smokers.

Habibullah rushes off in advance; sometimes we see him take a look round from a height and immediately after disappear, and continue his eager search for water, which is now the object of us all. We follow slowly in his footsteps, and he still follows the track, which is now much more distinctly worn in the ground than below. Here we are forced by the form of the valley to tread in the same track, whereas down on the steppe we could go anywhere and always find good footing. Sooner than we expect we come to a small pass in the Busurgi chain, a flat and easy threshold between hillocks, and then descend to the north-east. To the north is unfolded an extensive view over the Kevir sea, and to the north-east are seen the low elevations which doubtless mark the position of the firm land, which juts out like a peninsula in the neighbourhood of Jandak, and on the east bounds the large bay of the Kevir we have already mentioned.

The hillocks round the pass consisted of quartz porphyrite, and the height was 4088 feet.

What was the best thing to do? We had enough straw only for the evening, but cottonseed for three evenings. Of flour we had sufficient for two days, but the water would only afford a cup of tea per man. We had depended on Ashin; for even if we did not find all we wanted there, we could send to fetch it from Anarek, 3 farsakh farther on. We had no guide, and none of my men knew the positions of the wells, and it might be dangerous to get lost without water in this desert country, where the distances are so long between the wells, and where they are so cunningly hidden in the ground. We therefore decided to give up all thoughts of Ashin and to hasten on and make Jandak our next object. Gulam Hussein had been there, and if we only did not miss the track we should come upon some well before we arrived there.

The caravan jingled down through the narrow winding valley, while I, who was engaged in collecting rock specimens, came strolling after. But when no well appeared and twilight was coming on, I ordered a halt in the narrow valley, after a tramp of 19 miles.

As soon as the camp was arranged I sent out Gulam

Hussein to reconnoitre. After half an hour he returned with the news that he had found a well with slightly brackish water. Then he and Habibullah, provided with two sheepskins, mounted two camels and went off to the well to fetch water. It was not till ten o'clock that we heard their shout down in the valley,—they wished to find out how much farther it was to the camp. Fortunately they had taken a lantern with them, which appeared a little later, dancing like a will o' the wisp, as they came up with both sacks full of quite sweet and fresh water.

CHAPTER XXV

THE PATHS OF THE SANDY DESERT

THE Persians took it into their heads to hold a grand kettledrum in consequence of the abundant water-supply, and it was near midnight before the noise and the bubbling of pipes came to an end. But at eight o'clock on January 21 we were on the way again, and the day was gloomy and dark, and heavy threatening clouds hung down from heaven. It blew and whistled among the rugged hills as we marched on through the valley shut in by low heights of porphyry. It expanded, receiving several tributary valleys from the sides, but its drainage-channel was not excavated to any great depth. After an hour we came to the well. Gulam Hussein had traversed this stretch of road five times, but he was still just as alert and lively as usual.

The water stands in the solidly walled well at a depth of 3 feet below the ground, and therefore it has to be hauled up in buckets and poured into a gutter or trough paved with stones, from which the animals drink. Camel and sheep dung is very plentiful, and several pen-folds are seen on the hillocks around, simply consisting of enclosures of stone. A little to the south-east also some temporary cabins have been erected, where the herdsmen shelter when they visit the place for water. Diabase, hornstone, with a considerable mixture of sand and reddish quartzite, occur *in situ*.

Just at the well the valley opens out and leaves room for a very extensive view to the east and north-east over the boundless desert. To the south-east is seen a snowy

summit of some importance. Here, too, the road forks, and we are again in a dilemma; the left branch looks as if it were mostly frequented by herdsmen coming up to the well from the steppe with their herds, and therefore we resolve to try the right. But first we let the camels drink their fill of good sweet water, the stone trough is filled repeatedly and emptied again, all the men drink to their hearts' content, and then three sheepskins and all the jugs are filled—we cannot tell exactly how far it may be to the next water.

Our road winds for a while between hills and crosses flat offshoots from Kuh-i-busurgi, but soon we are out on the even detritus slope, which falls extremely slowly north-eastwards down to the level surface of the Kevir and towards the sand desert.

At ten o'clock it rained a little, and half an hour after there was a slight snowfall with a northerly wind. Marching south-east we went straight across two large drainage-channels running to the Kevir, and then passed several small flat tabular elevations of rolled pebbles, old relics of erosion a few yards high, rising here and there from the level plain. Between them lay hollows and flat trenches, and in two places small expanses of kevir of the usual appearance. South and south-east our way was barred by a considerable snow-clad range, still a good distance off, and Gulam Hussein, who is a native of Khur, suspected that we were on a road leading to Anarek. For my part I anticipated that we should be forced again by a southern extension of the Kevir to keep on this course until we could again turn north-eastwards to the wells on the way to Jandak.

But now, just in the nick of time, we see two dark specks to the south-east, which, with the help of the field-glasses, are proved to be a small caravan. The steppe stretches quite level up to the little group, and it is a good way thither—an hour's march according to my estimate if they stand still; but if they are going in the same direction as ourselves we shall not overtake them till evening. All our interest is fixed on these men, who can give us information we are greatly in need of; we there-

fore hurry our pace, and come up to them in half an hour, for they are traversing the same path as ourselves but in the opposite direction.

They are four herdsmen with their provisions and clothes on two camels, and are making for Cha-sefid or the "white well," the one we have just left. They watch 100 camels at the northern foot of Kuh-i-busurgi. They left Anarek this morning, and reckon it 5 farsakh to the town.

Although it was $3\frac{1}{2}^{\circ}$ above freezing-point the wind was bitterly cold, and it was a satisfaction to all when Meshedi Abbas made a crackling fire, round which we threw ourselves down and subjected the herdsmen to a searching cross-examination. Cha-busurgi and Cha-khalech lay at the foot of the Busurgi hill or Busrugi, as they pronounced it. At a half farsakh south-eastwards was seen, in the midst of the plain, a *hauz*, or a well protected by a vault of stone, called Hauz-i-Haji-Lotvi. It was 2 farsakh south-west to the village Ashin, which we had lost sight of by going too far northwards. Kuh-i-nigu is a high hill in the north-east on the way to Jandak, and N. 61° E. is a small hill at the foot of which we should find the village Alem; it is therefore called Kuh-i-Alem. Fakhe, Nakhlek, Kuh-i-mushemma, and Kuh-i-muhalla are simply hills in the district; they rise like islands from a sea, quite near the coast. Cha-Alem lies on the way to the village, and Cha-kharbuseh, or "water-melon well," is situated at the foot of an isolated elevation in the east-south-east. Kuh-i-sebers is a hill to the south. The road on which we stood runs very directly to Anarek, passing through a *gudar*, portal or passage, between two heights, and over an easy *kotel* or pass threshold.

The herdsmen advised us not to go farther than Hauz-i-Haji-Lotvi this day, and to send from there two of our men and camels to Ashin, where straw and cottonseed could be procured in abundance, for the village was quite a large one. Meanwhile, both we and the strangers thawed by the friendly fire, where we formed a picturesque group of freebooters in the wind, and if some mistrust might be detected at first, it disappeared entirely in the warmth

of the fire. The oldest, a man in the forties, with clearly-cut features, clad in a thin blue coat, with a black cap on his head and a pipe in his belt, let out by degrees that it was only 2 farsakh to the village Alem; he could not answer for it that we should find provisions there, but he offered to show us the way to the village if he was first paid a tuman; the 10 kran were counted out at once, but two of them seemed to him suspicious, and he wanted others in their place. The charge was, indeed, very exorbitant, but it was a good thing not to have to turn back to Ashin. Anarek was too far out of our course, and it was several days' journey more to Jandak.

While the other herdsmen continued on their way, the man in the blue coat led us north-eastwards to Alem, which we probably should never have found without him. After a while he bethought him that he had forgotten his cloak and ran back after his comrades, but Abbas Kuli Bek knew his good countrymen and suspected that the man had an intention of making off, so he followed him. They came back presently, and then the new guide marched at the head of the caravan. He pointed north and north-east and said, "There is Rig-i-jin, the sand desert, and north of it the great Kevir." One could see that the horizon to the north and north-east was broken by dunes.

The shrubs on the steppe are scattered and the pebbles are larger. The north wind is strong and feels icy cold; it drives the sand obliquely against us, and we see it lying in the furrows running north-north-east. It begins to snow again, at first slightly and then more densely, and all the surroundings, all the small hillocks, disappear, except the one we are making for and which is still seen in faint outline through the veil of snow. Wet, yellowish-red strips of mud remain in the shallow furrows left by the stream which flowed down after the last rain. Now and then a hare scuttles away on our approach, but there is no other game.

The snowfall is very dense, falling in whirling flakes and sweeping past our faces like tufts of cotton-wool, chasing one another in eager play, large as snowballs and

To the South-East and South from Alem.

Sandy Desert, South and South-West of Alem.

Dunes near Alem, looking North.

light as feathers. They flash before our eyes, and we start back as though to avoid a blow, and they fall to pieces on touching the ground as when one drops a handful of flour. Now not only has the little hill disappeared, but even the camels in front of our train seem only like spirits of the mist. I am again snowed up on my camel, and I am cautious to make no unnecessary movements lest I should get a cold douche on the nape of the neck and my pockets should be filled with snow. I sit quiet, therefore, and let the snow accumulate on the left side where the wind blows. The snow does not lie on the ground but melts at once, and the whole steppe becomes as wet as after rain. The snow remains only behind shrubs, and therefore the ground is speckled with white.

Beyond a large erosion furrow the ground becomes more and more sandy and overgrown with fine thriving saxaul and one or two tamarisks. A stretch of sandy desert lies before us, and we pass into the outermost dunes, several of them consolidated by roots of saxaul. They are very small, and their steep lee sides dip to the south-east and east-south-east. The ground consists of reddish clay mud, slippery as soap where it is wet, and on this clay the dunes are piled up. Immediately to the left of our route lies a belt of very high barren dunes; sometimes they have fallen in and run together, sometimes they stand up like pyramids.

The snow freezes on to our clothes, and the driving flakes rattle as they are dashed against us by the wind. The ground also begins to be whitened with snow, and we are surrounded by a singular scene, vividly recalling to mind the deserts of Eastern Turkestan. Our path winds among the dunes, which are about 30 feet high, avoids them or crosses their lowest ridges by small passes. The ground slopes down perceptibly in the direction of our route, though we are nearing the hill, of which the southern offshoots now begin to faintly emerge from the darkness. With hillocks to the right and a series of continuous dunes on the left, we move northwards through a flat furrow, which has evidently been washed time after time by such an abundant stream that no sand has been

able to accumulate in it. In this hollow tamarisks form in some places regular thickets; these tough, hardy bushes contrive to send down their roots where there is the best prospect of water, and so here is the well Cha-Alem which we have heard spoken of.

We pass two stone huts, but see no human beings. But that they are not far off becomes evident when we, a little farther on, ride past a hut of mud and stone with an arched door and surrounded by fields where green vegetables and wheat are grown. A few minutes more and our leader halts at the village of Alem, a single group of buildings like a caravanserai, where some camels lie ruminating in an enclosed court. Some men and boys come out of their hiding-places, evidently astonished at the unusual sight before them.

We hastily set up our camp, immediately to the north of the village, eager to obtain shelter in the tents from the still falling snow, which gradually passed into rain. It did not seem long before we had the pleasure of warming our hands before a large fire where we shook the snow off and dried our clothes. The villagers supplied us with as much fuel as we could use, and brought sweet water to our kitchen—the two water sacks from Cha-sefid had been emptied by the time we met the herdsmen from Anarek. They had not much straw to offer, but we were glad to buy what there was. Six eggs and a fowl were all the other provisions to be obtained in this little desert village, where the crop has to be drawn out of the earth by the help of any water that can be obtained from the ground by artificial means.

We stayed a day at Alem. We could not procure more than 1½ kharvar of chopped straw, but that was all that was wanted to take us safely to Jandak. As the inhabitants themselves fetch the straw they require all the way from Ardekan it was very dear, and they asked 1 kran per batman or 15 tuman for the lot. The day was also spent in baking wheaten bread for four days' journey, while I roamed about the country to get my bearings as correctly as possible, photographed, and drew a panorama of the whole neighbourhood.

78. Old Men of Alem.

The small village, a St. Helena in the desert sea (3113 feet), is said to be only ten years old, and has only fifteen inhabitants, who, poor and cut off from all the through routes, struggle for a living on this little desolate spot of earth. Their cabins are, as mentioned, built in a row, each dwelling with its cupola roof and its separate entrance. The courtyard in front is their daily resort. There sits a woman twisting thread over a wheel something like a spinning-wheel. There are only three women and a girl now in Alem, the rest being men and boys. The elder of the village, the village's factotum, Haji Hassan, owns twenty-five camels, which are grazing in the sandy desert 4 farsakh off to the north.

The sandy belt stretches from the west up to the skirts of the village, which, however, is separated from it by a muddy channel which is said to start from Kuh-i-sefid-ab in the south. Usually the stream dries up half a farsakh to the south of the village, but occasionally it flows on past the village and comes to an end at the foot of the higher dunes. Then the driftsand is washed far down and threatens the small quadrangular fields with their low banks of earth. Our friend Haji Hassan affirmed that the sandy belt stretches 7 farsakh northwards, where it runs out into the Kevir and is lost. To the north-west it continues for 9 farsakh, and ends in the neighbourhood of Kafir-kuh ("hill of unbelievers") beyond Kuh-i-busurgi. From one of the highest dunes near the village no limit could be seen to the driftsand belt northwards, but to the north-west the dunes seemed to be lower, and here and there even to be separated by strips of bare ground. In the same direction also appeared a southern offshoot of the Kevir, which probably is not far removed from the small flats of sandy desert we saw at the foot of Kuh-i-busurgi. At the place where the mud channel ends, the dunes get the upper hand, and are piled up on one another to a greater height than elsewhere; they also mount up the western slopes of the Alem hill, just as I have seen them do before in one or two places in the innermost parts of Asia. Probably the hill causes a more abundant accumulation of sand in this district, standing in the way of the

sand-laden wind from the north-west, and forcing the sand to fall and accumulate in front of the ridge.

The sand is yellow as in Eastern Turkestan, but rather coarser than in the Takla-makan. The steep leeward slopes fall to S. 70° E., while the crests of the dunes strike from NNE. to SSW.; they often form continuous chains, their lines being visible for a long distance, and here and there are piled into accumulations of quite sterile sand. The dunes, consolidated by coarse grass and tamarisks, often exhibit a deformation, even their western slopes being very steep. In the intervals between the chains of dunes appears the yellowish-red muddy ground, which shows plain traces of water and breaks up in large flakes; it may often be observed how these have been thrown up into banks and dykes with the object of damming up the flood water, whenever it reaches so far, and thus increase and encourage vegetation. In such small fenced-in patches water-melons are grown.

The inhabitants of Alem obtain their irrigation water by the following method. The well Cha-Alem, which we passed yesterday just before reaching the village, is the *ser-i-ab* of irrigation, literally the head of water or spring. It originates in the southern hills and comes down in mud channels partially underground; in any case it subsequently collects in the well and from there is conducted through a subterranean channel to the fields which lie at a lower level. If snow and rain fail, the well dries up; this year the people had no cause for complaint and, besides, were expecting the spring rains in four months. But if these also fail, Alem is left without a drop of water, and then the people abandon their village and betake themselves to Serhed-i-bakhtiari, that is, the "cold land of the Bakhtiari," the country where the Zayende-Rud, the river of Ispahan, has its source, and there they remain through the warm season, feeding their camels. Some years they migrate instead to the districts of Yezd or Sebsevar.

One cannot help envying the great geographical information of these camel wanderers; they know intimately large stretches of the interior of Persia, can go between Hamadan and Sebsevar on pitch-dark nights, and even find

79. People of Alem.

the wells, and they also know the names which the hills and watering-places have borne for centuries back. They reckon it 150 farsakh to their pastures in Luristan, and accomplish the journey in twenty-five days. They are, then, strictly speaking, nomads, and have no permanent home in Alem. If the life-giving rain does not come, the whole village packs its belongings on camels and sets off on its long wanderings, feeding the camels at suitable places on the way. The village is left silent and deserted, and not a single cock which now struts among the hens in the yard lets his voice be heard, but only the sand-laden wind of the desert howls mournfully round the sunburnt cupolas. But later, when another winter approaches, the nomads are glad to return, sweep the driftsand from their huts, clean out the well, and rest at peace after their long journey.

Haji Hassan had been often down to the margin of the Kevir, and was accustomed to cross the salt desert on his migrations to Sebsevar. He warned us against venturing out on to the Kevir at this time, as the season was by no means favourable. If rain or snow happens to fall when the traveller is in the midst of the desert, *gel* or mud is formed, the briny loam becomes as slippery as ice, and camels cannot take ten steps without falling down. It had often happened, he said, that caravans had in such circumstances been unable to move forwards or backwards, and both men and camels had been lost. If the weather is good and dry there is no danger at all, that is, with camels; with asses, horses, or mules it is different, for there is no drinking-water in the Kevir. If one wishes to cross the desert one should stay ready on its margin and start when the weather is clear and seems settled, and at first hurry on without stopping, so as to be as near as possible to the other side if it should begin to rain. And if rain does come, one must increase the pace to get over the ground before the surface becomes soaked and slippery. From all he said it was easy to perceive that it was no trifling undertaking to travel right through the Kevir.

At the end of February the wind usually blows hard from the *keble* or west-south-west, but easterly winds are

also common. When I remark that the former wind is evidently the more prevalent, judging from the orientation of the dunes, I am told that they turn their *ruh* or face to the west after strong easterly winds. Regarding the routes in the district I am informed that it is 50 farsakh to Ispahan and 8 to Anarek, which contains 100 houses, but has no cultivation, the supply of spring water being insufficient; Anarek therefore lives by camel-breeding, and owns between 2000 and 3000 of these animals.

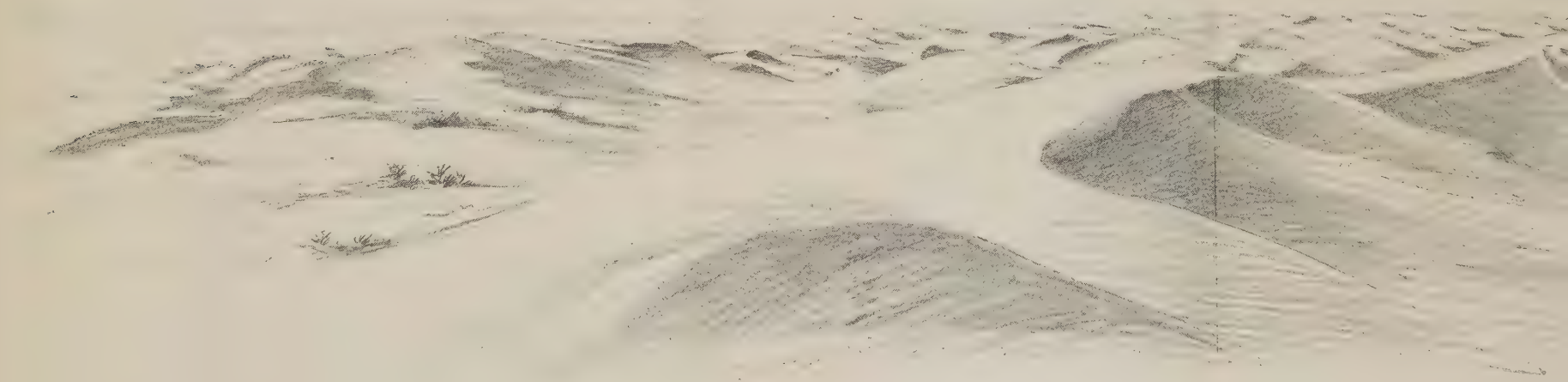
Two paths lead to Jandak, the southern through Chupunun and Hauz-i-penj, the northern through Cha-ghib, Chuchegun, Cha-dash, Cha-nigu, Bo-nigu, Cha-arabi, and Gez-essun; the latter is 3 farsakh shorter, but for the most part it runs up and down over dunes and through offshoots from the Kevir. I chose the former, which was dotted on maps, and therefore had probably not been traversed by a European. Five and 6 farsakh to the north of Alem are two wells, Cha-berghu and Cha-gudar-hash, which have salt water, but are available for camels which are accustomed to it.

After the men, for some unknown purpose, had bought two foxskins from Haji Hassan we bade farewell to the old man, and on the morning of January 23 set off to the east-south-east, slowly ascending over slopes of pebbles and sand between small basins and ridges of the Alem hill. Before us Kuh-i-nekhlek rears his steep, rugged, and bare summit of rock, and the slopes that fall in sharply marked lines from the hill's crest are shaded in dark violet. To the north the sandy desert stretches as far as we can see in the bright clear weather, and still farther one fancies one can see the dead salt desert, the home of silence and desolation. Following closely the eastern side of the undulations, small dunes have been piled up here, for we are now moving along a swell in the ground which falls to the north, south, and west. To the right we have the central mass of the hill, and it soon appears that we cross only its extreme offshoots into the desert.

We are in a hollow, and to the left stretches a piece of sand desert, a small field of more or less overgrown dunes, and a dry furrow cuts through the land to the north,

To the South-East and South from Alem.

Sandy Desert, South and South-West of Alem.



Dunes near Alem, looking North.

80. The Great Sands north of Camp 16, January 23.

81. Camp on January 23.

forming a dumb and desiccated proof of the fall of the land and of the fact that it can rain heavily even here in the desert. And farther on the yellowish-red dunes raise their backs and chains, ridges and belts, here and there separated by grey flats, where the underlying loam crops out—a phenomenon similar to the *bayir* in the sandy deserts of Eastern Turkestan. Near the Nekhlek elevation a singular transverse threshold of sand runs over the valley, and is crossed by the north-going furrows, which all strive to reach the Kevir depression.

After we have passed over a small saddle (3294 feet) between small steep knolls, we go downhill all day. The descending valley is at first skirted by a reddish mountain spur on the left, and on the right the massive of Nekhlek, with its rugged precipitous flanks, makes an imposing appearance now that it is close to us. Then the country opens out and the gradient is less steep ; to the right we still have the mountain, a smoking charcoal kiln, a camp, and a well called Maden-i-nekhlek. The steppe has scanty vegetation, and to the north the landscape up to the horizon is occupied by a sea of sand-dunes with huge hills of sand of a reddish-yellow colour. A smaller lower expanse of sand, which we presently go round, is distinguished from the former by its greyish-yellow colour. I go on foot for more than two hours, and after the walk find it pleasant to climb up to the top of my rolling ship of the desert. I am tanned and weather-beaten from sitting up there, especially as I am one day in an icy-cold snowstorm and the next have the blazing sun right in my face.

We have still the same *bellad* or guide, Kerbelai Madali, whom we so luckily found on the steppe the day before yesterday, the man in the blue coat who was paid a tuman to take us to Alem. We could not have a better, for he knows every well, can name every hill we pass, and give all the distances and the places suitable for camping. Haji Hassan had congratulated us on the favour shown by Allah in causing us to meet this man just when we needed him most. Just when we left the hill he vanished with two jugs into a cleft, and came back with the finest and sweetest of water, which tasted delightful in the warm

weather, and was truly refreshing after the nauseous water we had drunk in Alem.

Before us rises a dark chain called Kuh-i-cheft, or Kuh-i-cheft-u-Chugu, after two wells that are found there. Immediately to the right of this range lies Moshajeri, a district set down in detail in all maps of Persia, which therefore we leave as far as possible to the south. A very high and regularly formed table-mountain to the south bears the name of Kuh-i-mahella. Our route leaves Kuh-i-cheft to the right, and still farther to the right is the road from Anarek to Abbasabad and Tebbes. At the foot of Kuh-i-sur, S. 70° E., runs one of the roads from Yezd to Tebbes. With all its desolation this country is intersected by a net of roads and paths—small light bands worn down by the foot-pads of camels; the knots of the net are the wells, while in the meshes there is nothing but waste land, sand, and steppe, and dry, sterile, and weathered relic hills.

A little farther on, when some screening elevations are behind us, another isolated and mighty hill group comes into sight in the south, with steep sides and a small rock in front of it apparently disconnected; but the latter merges into the main elevation as soon as it rises higher above the horizon. Now we have reached the small stretch of sand, with dunes 25 feet high, and almost bare of vegetation. It is only an offshoot or patch of the sandy sea, which extends to the foot of a knoll in the south.

Then follows an expanse of hard ground bestrewn with fine pebbles, and crossed by two camel tracks leading out to the northern sands where the camels find the dry plants they love. And then we traverse another patch of dunes, among which the path runs in zigzags to avoid all unnecessary sand ridges. To the right we have still an outline of heights like a continuous range, but probably it would resolve itself into small groups more or less disconnected, if we had an opportunity of making a closer acquaintance with it. Again a pillar of smoke appears in the distance, rising up from a charcoal kiln, where men utilize the hard stems of saxaul and tamarisk to make

82. Dunes near Alem, partly clothed with Vegetation.

charcoal; *seghal drust mikunend* ("they are making charcoal"), say the Persians.

A welcome refreshing breeze sweeps over the peaceful country from the north-east; the thermometer marks at one o'clock 48.2°, and my servants want their usual midday meal. It is usually Abbas Kuli Bek who asks if I have any objection to a halt of ten minutes, and while the men enjoy a drink of water, a piece of bread, and a pipe, I make notes, take bearings, and read the meteorological instruments. As for myself, I abstain from luncheon, and am accustomed not to drink at all during the day; one is better without it in the desert; the Persians drink constantly, and yet are always thirsty.

With the mountain Kuh-i-doldor standing like a beacon in the south, we continue on our way eastwards over dreary, thinly clothed steppe, very seldom crossed by tiny furrows. At a couple of hundred yards' distance to the north are seen the backs of the dunes rising above a quite luxuriant belt of saxaul which grows on the edge of the sandy sea. From among the copses a camel herdsman appears, and comes up to have a talk with Kerbelai Madali, and then vanishes again among the bushes. If we did not know the actual conditions, we could take an oath that a large lake lay to the south, the more so that the hills to the south of it seem to be reflected in its surface; and yet it is only an illusion of mirage. Lakes in this country! A man can travel here for weeks without seeing a drop of water on the surface, and the little that exists beneath the ground is artificially extracted by scattered wells well hidden in the mouths of valleys. We have just had some precipitation, which does not remain on the ground but evaporates without leaving a drop behind; it sounds, therefore, an exaggeration to say that rain and mud are the greatest dangers on a journey through the Kevir.

We gradually approach the dark range Kuh-i-cheft, and the Nigu hill, which shines in shades of pink, shows more and more of its details. Either the plain is absolutely sterile, or is coloured yellow by scattered shrubs; sometimes it is crossed by lines of saxaul bushes running north

and south, which have evidently fixed their roots in some subterranean rivulet. Before us to the right a long dark line lies along the ground, which presently resolves itself into specks coming towards us obliquely; they grow larger, and turn out to be unladen camels. They are like ships on the sea, which cross our course among the rocky islands and sandbanks in a scattered archipelago. They reach the point of intersection before us, and go on towards the belt of saxaul at the border of the sand-dunes. Eight men wait for us, simply herdsmen, as we might suppose, from Anarek, on their way to the camel pastures of the sandy desert.

Now we pass the first section of Kuh-i-cheft, and leave on the right the two wells Cha-i-chugu and Cha-i-cheft, and on the farther side of this dark ridge Moshajeri is situated. To the north the sands are piled up into still higher dunes, round swelling banks of a light red colour, and perhaps 65 to 80 feet high. And at their margin the saxaul belt runs unbroken as if it were a hedge planted as a protection against the encroachment of the sand. A more advantageous caravan route cannot be conceived. It runs straight as a dart east-north-eastwards without an inequality or a bend.

Evening is drawing on, the sun is behind us, the camels' shadows lengthen out and run along before us like antennæ. Habibullah, who leads the first camel, cannot resist the attraction of the saxaul belt, where there is inexhaustible material for camp fires, but Kerbelai Madali comes forward at once and warns him not to diverge from the direct course. The other men vote for encamping, but the guide, who has solemnly promised to take us to Jandak in four days, says quite calmly that the ground is not far off. At length he turns off to the north-east, and directs his steps to a part of the saxaul belt where the bushes, light yellow, almost white, attain a height of quite 10 feet, and where they grow especially close. A grand sight! We might have come upon an oasis in the desert and pitched our tents under spreading trees, and the Persians call such a belt of vegetation *yangal* or wood, just as in Eastern Turkestan, or on the way to the Karakorum

83. Haji Hassan of Alem, 57 years old.

pass, where Chong-yangal is a name derived from brush-wood. And yet the saxaul bushes are little higher than our tents and camels.

The first thing to be done, especially when, as now, we have to take advantage of the last light of the departing day, is to record one or two landscape pictures on photographic plates, draw a panorama of the neighbourhood, and insert in it all the names the guide knows, adding the compass bearings. Now, for example, we have Abbasabad at a distance of 8 farsakh to the east-south-east, and beyond stands the outline of Kuh-i-Abbasabad. To the east is Kuh-i-ab-i-germ, with the road from Anarek to Tebbes, that singular oasis which has been visited by few Europeans, and lies beyond all rhyme and reason in the heart of the desert, and which we already endow with all the heavenly beauty that can be imagined on earth. To the south-east Kuh-i-cheft rises up with its wells, and to the south-west Kuh-i-mahella. To the north-west expands an immense tract of sandy desert with its wells, Cha-berghu, Bash-koshi, Cha-shur, and Chuchegun. Kuh-nigu and Bo-nigu are seen north-north-east, and to the east-north-east Kuh-i-chupunun, the outline of which will serve in the morning as a landmark to guide our course.

Our camp, No. 16 (2661 feet), is really very comfortable, and there is as much fuel as we want. In a very short time a great heap is collected, and my men need not go far to find dry stems with roots not going far down to reach water. The wood pile would last a week or more, and now for once we enjoy the cheerful, bright light of a blazing pyre. Avul Kasim, Mirza, and the Cossacks keep their tent open and let a fire burn before it; the interior is therefore lighted up as never before, and the group around the common supper is truly picturesque. They laugh and talk and find life worth living, they light their water-pipes and roll cigarettes in newspaper, and drink tea again and eat bread and roghan with never-failing appetite. The firelight falls on the light clumps of saxaul, and throws on them ruddy reflexions; the camels catch gleams of light and look like slowly moving apparitions, formless and strange against the dark background. The hill, which lately presented its

front to the desert, has quite disappeared, and its distant outline, scarcely perceptible against the sky, has merged into the horizon. At sunset, when the temperature falls quickly, one seems to hear a slight ringing or rustling sound from the dunes, possibly the combined tone produced when myriads of grains of sand cool and scrape over one another. It is the evensong of the desert, the curfew bell of the new night rung by these dunes now reposing after their restless wanderings through innumerable centuries. The ruddy firelight flickers over the surroundings, while the shadows of the tents, camels, and bushes radiate out into the murkiness of night, which envelops us on all sides. It is quite calm and silent; the sky shows not a wisp of cloud, and the stars twinkle cold and bright. Between us and them is the space of the universe, and around us slumbers the desert—an unsolved mystery.

84. Mud Huts in Alem.

85. A Mud-Belt in the Kevir.

CHAPTER XXVI

THE VILLAGE CHUPUNUN

Mirza rouses me a good while before sunrise, while the last shades of night linger without, and it is still dim and cold within the tent. I have little inclination to leave my cosy bed, but the lighted candle, the warm washing-water which awaits me, and the crackling blaze of the mangal driving the numbing cold from my airy chamber, soon recall me to the present. While I am getting ready, day breaks, and before the tent-flap is thrown open I see by the lightness that it will be a warm day; it shines clear and bright through the tent canvas and there is no wind, for the warmth from the brazier stays within and is not driven out.

It was then pleasant and delightful to go out into the air on the morning of January 24. The dull, yellowish-grey saxaul, with its soft ornamental foliage, was brightly lighted by the sun, and contrasted sharply with its long-drawn-out shadow, which stretched its dark blue band over ground white with hoar-frost. Not the smallest cloud hung over the earth; the sky did not, indeed, exhibit the intense blue colour of Mediterranean countries, but its dull paleness was pure and clear. The crenellated crests of the hills stood out sharply, and were lighted up in quite a different manner from the day before at sunset. The western hills, the details of which had been swallowed up in shadow when the sun sank, were now bathed in the light of morning, while Kuh-i-cheft presented an unbroken profile beneath the rising sun. The hill at Chupunun was still so far distant that it appeared only in light confluent

tones, and yet it was the end of our day's march—*Inshallah!* In the nearly horizontal rays of early morn the forms of the sand-dunes could be perceived in all the elegance of their relief, their finely modelled convexity and boldly sweeping crests, their spurs and declivities. Sharp shadows filled up the intervals between the dunes, and over the sandy surface of the desert with its regularly arranged structure forming a monument and a memorial of winds that had sunk to rest, Kuh-i-nigu rose as a background in the north.

Though we were surrounded by nothing but desert and driftsand and the scanty remains of former mountain ranges, which still struggled obstinately against the disintegrating forces of the atmosphere, the scene was pleasant and inspiriting, and the bright calm winter weather was just what I had expected in the interior of Persia. We set out at the usual time, and in the usual order of march, and had now in our company two camel herdsmen, who carried with them their belongings packed on one of their animals. From the promontory of the Nigu hill to the north-north-east it was, it seemed, only 4 farsakh to Jandak, but looking at the huge mountains of sand that were piled up in that direction, we were glad to avoid wearing out the camels and follow the hard convenient path that ran to Chupunun, though it was some farsakh longer. Of our thirteen camels two were quite worn out; even with very light loads they dragged their legs behind them and let those before them, to whose pack-saddles their halters were tied, tow them along. The other eleven, on the other hand, were in excellent condition, and looked as though they could endure many hardships.

In the strong, almost blinding light of morning our ships of the desert stride along on their way eastwards, sure and stately as ever. The leader, one of the largest and strongest stallions, has a countenance which expresses the deepest contempt for mankind. No one need lead him by the rope; Habibullah has thrown it over his neck and walks behind him. Accordingly, he has no one in front of him, but he follows the path as closely as a tramcar the rails, without looking about him, and without troubling

86. A Group in Alem.

87. On the way to Chupunun.

himself in the least about what is going on behind him. Occasionally he turns his head slowly and solemnly as on a vertical pivot to the side, and gazes with a look of supreme indifference in his large brown eyes at the dreary land which stretches around him in every direction, and which in all its boundlessness seems a trifle for his calm, confident stride. He has not an atom of pride in marching at the head of the train, but takes it as the most natural thing in the world to go first and lead the caravan quietly and silently towards Chupunun. He hears by the regular beat of the bells that the others are following, but when there is a stoppage, owing to a load beginning to slip off, and the bells cease to ring, then the leader also halts, turns his head slowly, leaves the path, and goes to feed on the nearest shrubs. And when the cause of delay is rectified, Habibullah has only to guide the leader a few steps with the rope till the bells ring again their usual march, and then he takes care of himself, and the smooth sound of the pads gliding over sand and pebbles is again heard softly amid the clang of bells.

At the camp lay a mud-flat with its yellow crust turned up in many-sided flakes, formed by rain-water from Kuh-i-cheft. A little farther on our way we come across another much larger, smooth as a frozen lake, and affording as good footing as any asphalted street. Then follow a whole succession of such flats, which show that we are actually in a depression which, but for them, would escape our notice. But certainly the ground rises from here southwards to the foot of the Cheft hill and northwards to the foot of the Nigu hill. When it rains in the former, the drainage water sweeps down mud and deposits it in the depression, which therefore gradually rises in the course of time. A large pool of 20 square feet still remains in a mud furrow, covered with a very thin sheet of ice after a night temperature of 21.7°, and it seems singular that it can survive the mild temperature of the day. All the men lie down on their stomachs of course—it is impossible to pass by fresh sweet water with ice in it; the little that is left is swallowed by two of the camels and Nevengk. Two more such ponds are seen, marking depressions and showing that,

however shallow they may be, they still act as temporary water-reservoirs to supply moisture and sap to the belt of saxaul. For this luxuriant strip of vegetation continues, henceforth, to the left of our route, and very seldom do we pass a bush or two on our right.

On the southern side of the Nigu hill, which is turned to us, there is said to be no well; the strata dip northwards, and the ridge of the crest is even in contrast to that of the Cheft hill, which is jagged and irregular. When we are half-way, another elevation crops up with abundance of snow on it; it is called Kuh-i-Hijer and Kuh-i-Basio, after the villages Hijer and Basio at its foot, which are 8 and 9 farsakh distant respectively. Immediately below, and to the left of it, stand two smaller heights, Kuh-i-kabudan and Kuh-i-heftemun, also named after villages.

The path now turns aside somewhat from the great continuous belt of sand and the girdle of saxaul, but a projection or offshoot from it forces us to diverge to the south-east. But we cut across a point of it where it is narrow, leaving on the right a peninsula of sand with dunes 30 to 40 feet high, and almost perfectly sterile. This nearly isolated clump of dunes is very peculiar; the individual dunes have a small cornice on their ridges falling steeply to the east, but otherwise are arranged in no distinct order, evidently the sport of the changing caprices of the winds. It seems singular that the sand should collect and rise higher just at this spot, whereas we have travelled so far along its edge without passing any outstanding points. But the reason must be that a ramification from the southern hills runs out here in close proximity to the sandy promontory, and this, no doubt, produces an eddy which causes the driftsand to settle down. This collection of dunes is connected by two isthmuses or necks with the great sands to the north; the first neck is 200 yards broad, and consists of small separated dunes sharply defined and standing like moulds or blocks on the hard foundation. The other neck is similar, but smaller. Between the two lies a sort of lagoon of bare ground, surrounded on all sides by dunes. Why the ground is bare precisely at this spot

88. Hassan, 17 years old, at Chupunun.

89. Kerbelai Madali.

it is hard to say, but possibly it is a consequence of a deviation of the sand by the neighbouring hill.

The temperature is 53.6° at one o'clock, and with the sun in our faces it feels blazing hot, while the air is perfectly still. It is a pity that the camels have had to carry their thick winter coats all the way from Teheran, and even now cannot get rid of them. But there is still no dependence on the weather, and the nights are quite cold. When the spring weather becomes really warm, the camels' wool will soon fall off. The Persians say that the weather will be cold for three months more, but they must consider it cold only when compared with the great heat of summer, which turns the desert into a blazing furnace.

We are again out on the steppe, where tamarisks are few, and quite low dunes form a more or less continuous expanse on both sides of the track. The ground falls a little southwards, and we direct our course towards the east-north-east, along the eastern extension of the Nigu hill, with its ruddy lines. We halt a while at a place where fuel is fine and abundant to collect two huge heaps—we may be sure that there is a scarcity of this article at Chupunun. We have circumnavigated a southern tip of the great margin; and all the way from Alem we have had abundant opportunities of following closely the southern boundary of the sandy desert, which I have inserted in my map. Of its northern extension we have hitherto obtained only approximate data, but we hope shortly to see the locality where the sandy desert passes into the Kevir.

Here and there we pass over some small dunes or mud-flats, and leave on the right two low hills, and then the village Chupunun comes in sight, at the eastern extremity of a flat arena of clayey soil. Chupunun is of the same type as Kerim Khan and Alem. All the houses but two are built together in a row with a succession of mud cupolas. The inmates come out and gaze at us with the greatest astonishment as we pass on to the east of the village. But their respect is soon aroused when Kerbelai Madali tells them that we have stayed at Alem and that we were not at all stingy, but paid the people well for all the provisions they could spare us. So they soon come

and offer us a brace of newly killed gazelles, showing that they are more expert hunters than my Cossacks, and that they live partly on the chase. We can buy straw and cottonseed. While I am sitting drawing a panorama of the Nigu hill an old man comes limping up and says that he has been ill for fourteen years and asks if I can help him. On this journey also I have, of course, a medicine-chest, a present from Burroughs and Wellcome of London, but it is very doubtful whether it could be of much use in such a chronic complaint. The old man receives a few kran instead of medicine, and is evidently much better immediately.

Chupunun obtains its irrigation water from a kanat, its subterranean course from the south-east being indicated by a series of heaps of earth; the water is conducted to a dam, and thence is distributed by surface channels over the fields. In the night, when the noise and talking have ceased in the camp, the water is heard tumbling over small sills and falls, an unusual and pleasant sound in this dried-up land.

We had travelled 16 miles and 20 the day before, so it was but fair that the camels should rest over January 25 at Chupunun. This day, too, the weather was fine after a temperature of 22.5° in the night, and only a few light clouds floated in the sky. First I inspected the camels, which during days of rest receive particular attention. They are cleaned and brushed every day, but now are relieved entirely of their pack-saddles and are covered only with felt cloths, their humps protruding through two holes. If there is any tendency to galls on the back the sore places are well looked after and covered with plaster, and a hollow is made in the corresponding part of the pack-saddle so that there may be no more friction.

Then I took a walk, with my sketch-book under my arm, to the open square of the village, where I took up my position and invited one after another to sit as models. The men are not hard to persuade; they usually sit quiet and silent, overawed by the solemnity of the occasion, and thoroughly convinced that something highly important is going on. The women are more difficult to manage; they

90. Chupunun.

have all possible objections to sit at all, and when at last they consent after a promise of a tip, it is equally hard to induce them to lift so much of their veil that I can see what they are like. And if a father, husband, or brother, who has authority over the model, removes the veil with a sharp pull, she is shy and uncomfortable, and is much disturbed at being, against her will, the object of general attention, and above all of being exposed to the eyes of an unbeliever. She lowers her eyes and looks at her hands on her knees, she blows her nose and turns about, and cannot sit still a moment. If she has a screaming child in her lap, matters are by no means improved, for the little one's cries are an excuse for all kinds of liberties which are not all consistent with the duties of a female model.

They are anything but beautiful, and I look round in vain among the tag, rag and bobtail for a speaking face—a dreamy expression which may serve as a personification of the melancholy and aspirations of the desert,—a daughter of the wilderness, pretty and fair as the flowers of the steppe in spring. Their features, on the contrary, are coarse, and their complexion muddy and spotty. They may be young in years but they, nevertheless, are aged and wrinkled, and often bear the marks and scars of smallpox and other disfiguring diseases; the eyes have hardly a spark of brilliance, the mouth is inexpressive, and the lips are coarse, the nose lumpy and shapeless, the hair straight and stringy, forming no frame of graceful tresses round the face. And the whole person is swaddled up in a very defective conglomeration of wraps and clouts, which were perhaps at one time of different colours, but are fused into a neutral combination of faded, dirty, washed-out hues. The principal garment is a wrap which enfolds the whole figure, and serves as a veil over the head, under which is also worn a separate headcloth.

The men wear long coats, which reach down to the knees and are made of coarse blue cotton cloth. They have a dirty white belt round the waist, wide trousers, coarse coloured stockings, or, more frequently, no stockings at all, clumsy light yellow shoes, and on the head a *kullah*

or black lambskin cap—if they can afford it, otherwise a small round skullcap of compressed white felt. All is dingy, ragged, and tattered; red patches are sewed with coarse thread over holes in the blue coats, which at the bottom are torn into fringes and rags by age and wear.

Now and then I obtained a slight insight into their daily occupations. The women sit winding and twisting yarn over a *charkh* or spinning-wheel; they bake bread on an upturned pitcher vessel with fire beneath it; they mend clothes, dandle their babies, or play with their older children and search for vermin in one another's wigs—very good sport which does not involve the least danger of exterminating the game. They must have a very wearisome life, one day like another; but they know nothing better, have no wants, and see their sons grow up to be camel herdsmen and tillers of the ground, struggling for existence on the margin of the desert.

Most of the men's time is taken up by the camels, which are led out to the pastures and driven home in the evening, unless they are so far away that their owners camp out beside them. In the village they look after the canal, keep its channel in order, and take care that the *hauz* or dam is at the correct level necessary for an equal distribution of the water over the fields. On these there is already a tinge of green, the growing crop, living germs themselves essential to life, which are conjured out of the arid soil of Ahriman as soon as it comes into contact with the precious and scanty water.

Here wheat and barley are cultivated, Jerusalem artichokes, onions, green vegetables, roots, etc., and cotton, the latter in such quantities that it is "shipped off" to Anarek; just as we arrived some camels laden with cotton were leaving for that town. We were therefore able to increase our store of *pambedaneh* or *pembetuk*, as cottonseed is called here. In the tracts where saxaul and tamarisk grow are erected kilns (*maden*) to produce charcoal, which is sold for a tuman, or 3s. 7d., a camel load.

Chupunun consists of 10 houses and households with 50 inmates all told. In the form and on the site we found the village, it was only two years old (built in 1903), for

91. A Courtyard in Chupunun.

the old Chupunun lay half a farsakh farther south, as is shown on the Russian map of Persia. The village owns 300 camels and 500 sheep; the latter graze in the hills this side of Anarek. Here are also a dozen asses, an animal we have not seen for a long time, but then we are in the desert lands where only camels and dromedaries thrive. Prince Sil-i-Sultan, the Shah's brother, has a chief secretary or *munshi-bashi* who owns Chupunun and derives an income of 200 tuman yearly from the village. The inhabitants are, therefore, actually his bondmen, and work as such to force a crop out of the niggard earth, and the munshi-bashi, a depraved sybarite probably, lives comfortably on the proceeds, and has means to provide himself with a harem and other luxuries.

The houses, or rather mud cabins, are, as mentioned, built in a block, and in the distance look like a caravanserai. This style of construction is necessitated by the climate, and is no doubt the most practical that can be devised in such a country as this. If each hut were built separate, it would be more exposed to the wind and drifting sand, be more heated on all sides by the summer sun, and cooled in winter, but built together in one group they can more easily defy wind and weather. As there is no timber to be had, flat roofs are out of the question, but vaulted cupolas are constructed of sun-dried clay. The interior of the huts is very simple, wretched, and dirty; of cleanliness the inhabitants have as little notion as most other Asiatic peoples.

Of the village's artery and source of life, its kanat, I was informed that it originates from two wells, one of them situated 2 farsakh off towards the south-south-east in Kuh-i-Abbasabad, the other at the same distance south-eastwards at Godar-i-verbend. Thence run two canals which unite at Old Chupunun, and the water is conducted by a branch to the present village. On a hasty glance, the ground seems to fall in that direction, but in reality it rises, though very slightly, only enough to let the water flow hither. The section of canal which starts from Old Chupunun had been finished two years before, after six months' work.

The same description was given me here as at Kerim Khan of the manner in which the subterranean canals are laid out: that trial wells are first sunk and the water filters in, and is conducted whithersoever it may be wanted. One well after another is digged in a long row, and their bottoms are connected by an underground passage with an archway partly supported by sun-dried bricks that it may not fall in. The canal is about 3 feet deep and about as much in breadth, and its construction naturally demanded much trouble and care. A stranger is astonished to see such delicate and painstaking work executed by the lax and indolent Persian folk, but necessity has no law, and if they wish to keep alive they must fight against the difficulties Nature places in their way. In this struggle for existence also their minds and their perception are developed just in the directions most necessary. They see that the soil in a certain locality is suitable for cultivation, if the ground falls slowly and steadily down to it, and if there is water in the place where the head of the canal is to be excavated. Not till they have satisfied themselves that all these conditions are fulfilled do they proceed to the construction of a new hamlet such as Chupunun.

In contrast to Alem, Chupunun is said to be independent of precipitation. If any snow falls at all this year it must come within two weeks, for after that the precipitation takes the form of rain, and in general is very unequally distributed; some years it rains heavily and in others not at all. But whether it rains or not, the canal does not dry up, for it is a channel for subsoil water which is always present.

The natives of Chupunun are far from their nearest neighbours, for Ashin, Alem, Anarek, and Abbasabad are the nearest places. But they are not on that account by any means isolated, for roads between these places converge to Chupunun. To Anarek it is 16 farsakh through Derbendu, Moshajeri, and Dehene-i-lariyun; to Ashin a way runs through Sergudar-dum-biasun and Hauz-i-Haji-Lotvi. It is reckoned 40 farsakh to Yezd through Aruzun, Hauz-i-abresham, Cha-pelenk, Hauz-i-gebra, Cha-i-khorasani, Mesreis, and Haji-abad. And to Tebbes one travels

through Hauz-i-verbend, Ab-i-germ, Mehrejun, Hauz-i-mirza, Cha-meji, Dari, Jaffaru, Khormau, and Shur-ab.

A certain interest, however, is aroused in the village when a caravan on its long wanderings halts before its gate, and especially if it is the party of a travelling European. It always brings with it a whiff of the outer world far beyond the range of the desert, and makes a little change in the monotonous life.

The environs of Chupunun are not entirely devoid of picturesque and charming colouring. To the desert and its neighbouring lands an almost Biblical solemnity seems to be attached, and here more than elsewhere one feels that the same purple gleams now spread over hills and plains as in the misty times of legend and story when Median merchants crossed Iran with their caravans. Particularly striking are the red hillocks to the north and north-east, and when the sun sets they glow with such an exceedingly intense colour that they remind me of red-hot iron. Like an endless riband the road to Tebbes winds eastwards over ground dried up and burnt by the sun, and it would have been an advantage and a saving of time to follow it, but we had determined to visit Jandak first. To the south is displayed a world of hills, of which those to the south-east make a respectable show with their snowfields, and form a huge undulation in this part of the country. In the same direction stretches of sandy desert alternate with steppe, and immediately to the south of the village a long and singular sand-dune with a steep fall on either side starts off east-south-east from a mound. It is evidently growing no more, but has reached its maximum dimensions; that is to say, every gust of wind carries to it as much driftsand as it sweeps away. The mound, which consists of red limestone, forms a curve convex to the south, and within the concavity lies a small mud-flat, so smooth that it shines like ice in the sun. Where the limestone on the ridge of the mound lies exposed to wind and weather, it has been eaten out in designs which resemble in their smallest details the ripples which the wind produces on water or sand, or the marks left by waves on the bottom of a lake. The hardness of the

material counts for nothing, though a smooth lake surface is rippled by the gale in a second, while it takes centuries to carve out the same fine designs in the hard limestone.

In the deserts and steppes round Chupunun there are plenty of gazelles, and the three recently shot specimens we bought afforded us excellent kebab for two days' journey. Of wild asses there are none; wolves and foxes occur in the hills, where rock pigeons are very common. Mosquitoes buzzed over the pond and made very importunate visits to our tents,—it is not to be wondered at that they find their way so far into the desert as long as there is a puddle of water to be found; they come with the men and animals.

At Chupunun there is a red, crystalline, fossil-bearing limestone *in situ*. The absolute height is 2966 feet.

CHAPTER XXVII

THE ROAD TO JANDAK

JANUARY 26. The temperature is about 9° below freezing-point; in the night it was 23.2°. A slight hoar-frost which covered the ground vanishes at sunrise, and thin white vapour rises from the surface of the canal, showing that it is warmer in the kanat than on the ground.

We cross the subterranean canal near the place where it emerges into the open, coming forth as from a hole or a small glacier cave, and then we diverge more and more from the row of molehills which mark the openings of the vertical shafts above the kanat. We have on either side the small hills and mounds visible from Chupunun, several of which are lightly covered with driftsand or facilitate the formation of dunes at their feet. Here all the ground is sandy, but it is hard and sprinkled with pebbles.

I study daily with increasing interest the large-scale English and Russian maps of Persia I have with me, and am pleased when I have opportunities of completing them. A day's march, if it is as long as 20 miles, is not much on these maps, and the enormous distance between Ararat and the "Black King's Mountain," where I intend to pass into another country, almost turns me giddy. Persia is poor in everything except in square miles; it embraces 635,000 square miles against Sweden's 173,000, and the population of Persia, nine millions, is only double that of Sweden.

There are many features in the general relief and orographical structure which are common to Persia and the Tibetan highlands. Here, also, though at a level nearly

13,000 feet lower than Tibet, we travel through long, broad, open longitudinal valleys, with a very even bottom and finely disintegrated material, and bounded by comparatively low chains and crests at a considerable distance apart, and the land is sterile, dead, and desolate, and men are seldom seen. And yet the differences are very great. The greatest is the comparatively abundant precipitation in Tibet, where the mountains are clad in eternal snow, and where sweet-water springs bubble up on the strands of large lakes, where the cold is severe owing to the elevation, and grass and wild animals are more plentiful. But what, above all, reminds the traveller in Tibet of Persia is the position of the mountain ranges and their grouping. In both countries they are most closely crowded together in the west and straggle out towards the east. In western, south-western, and southern Persia a system convex to the south forms a faithful copy of the curve of the Himalayas; the ranges which run through Kashan, Yezd, and Kerman correspond to the Trans-Himalaya, and the mountains of Elburz and Khorasan in the north are a repetition of the Kuen-lun. But in place of the high alpine country south of the Kuen-lun stretch south of the Khorasan mountains the great desert and the Kevir. And the resemblance extends a step farther to the east, where Tibet passes into the Indo-Chinese system, Persia into the mountains of Afghanistan and Baluchistan. The earth's surface has here disposed itself in regular folds, hanging in festoons to the south in the same manner as the mountain curves on the east coasts of Asia, so distinctly apparent in the curves of Japan, Kamchatka, and the Aleutian Islands.

Leaving Old Chupunun to the right, we ascend over hard and absolutely sterile ground towards the north-east, deserting the longitudinal valley we have followed for two days. The relief now becomes more pronounced and varied, new hills crop up before us, and in the gaps between them we often see more remote ridges and elevations. Pusa-i-verbend is the red summit on our right, and to the left stands a chain bearing the poetical name of Kuh-i-hesar-dere or the "hill of the thousand

92. Domed Houses in Chupunun.

93. My Improvised Tent at the edge of the Kevir.

valleys," of which the Nigu hill forms a part. Behind the range Kuh-i-seruman in the north-east is a well called Cha-che-brun. And, lastly, to the north is seen at a considerable distance Kuh-i-Jandak, with Jandak on its farther side.

The road we are now on is the great route from Anarek to Shahrud and Semnan, and runs right across the Kevir. It cannot claim to be more than a path, but it is more worn and sunk deeper in the ground than the one we have followed hitherto. To the west or west-north-west it is said to be only 2 farsakh to the margin of the great salt desert, and half of the interval is filled with driftsand, the other half being a flat, sandy transitional zone. The lower road to Jandak, which we heard of at Alem, runs to the north of the hills along the edge of the Kevir.

After crossing the plain we come in among the spurs of Pusa-i-verbend, of the same fossiliferous limestone as at Chupunun, and pass an erosion furrow which is unusually deep and boldly excavated, bearing distinct traces of abundant rain-floods which find their way to the Kevir by this channel. Where it leaves the mountains there are said to be several *seng-ab*, literally "stone-water," that is, small natural reservoirs in the bed where ponds of water remain a long time protected by boulders. We have soon passed this *gudar* or defile among the hills, and turn more to the left, till the direction of our march becomes north-north-west, and then we keep straight on. We have, then, at length passed round the southern extremity of the great offshoot of the Kevir, which at two days' journey from Kuh-i-nakshir forced us to the south-east.

Again a belt of plain lies before us and stretches up to the foot of Kuh-i-seruman. On the left we have an expanse of driftsand with huge, perfectly sterile dunes, so that we have not yet lost contact with this extensive and sharply bounded sandy desert which forms such an extremely characteristic feature of the geography of the country, and is not marked on maps. The name Rig-i-jin, which we had heard many times before, was applied by the inhabitants of Chupunun to the sandy belt, and

they said that the word *rig* denotes sand or sand-dune, so that the name means the "sandy desert of spirits."

I have walked for more than two hours, and am glad as usual to occupy my safe place of observation perched between the humps of my favourite camel. Just at this point are growing several hundred wild melons, not larger than apples, fine to look at, fresh and pleasant to the touch —they feel like tomatoes, and, warm with walking, I long to take a bite. But they are as bitter as quinine, and one of the camels which tries one of these yellow juicy fruits makes haste to spit it out again, pulls the most horrible grimaces, shakes his head and slabbers. However, they answer well for a snowball fight, and my men commence pelting one another furiously with the delusive fruits. Abbas Kuli Bek plants a projectile right in the eye of Habibullah, so that it swells badly and makes a small contusion, and the latter, after collecting a score of melons in the skirt of his coat, pursues the nimble Cossack, but without success. The Persians call these fruits *hende-vane-i-seherai*, that is, "Sahara melons."

Lately it was burning hot, but now, with the sun at our backs and a cool north-westerly breeze right in our faces, it feels fresh and pleasant, and the temperature at one o'clock is up to 49.6°. The "hill of the thousand valleys" is now seen foreshortened to the south-east; its strata are broken off short on the southern side where the fall is therefore very steep, while their surface dips slowly and evenly to the north.

We soon leave Kuh-i-seruman behind us; at its northern foot is a spring of sweet water called Seruman, where a stone hut is built, and Habibullah goes off thither with a sheepskin to fetch water. To the left we have dunes 60 to 100 feet high, and the sea of sand stretches out towards the west-north-west; the outline of its sand-dunes is very distinct, and has an illusive resemblance to several of the hills around, especially as they are coloured in the same reddish shades. Between the northern edge of the sand-belt and the southern foot of Hesar-dere the ground is free of sand, and here several furrows make their way westwards to the Kevir. For the Kevir, though

an exceedingly shallow and flat depression, is an enormous recipient for all the rain-water that falls in the surrounding hills; it collects from all four points of the compass as into a lake. The Persian desert is only one link of the chain of deserts which extends from Manchuria through the Gobi, Takla-makan, Turkestan, Iran, Arabia, Libya, and the Sahara to the west coast of Africa—a gigantic belt of deserts which Peschel aptly compares to a dried-up river-bed. Here the climate is dry, and the precipitation which falls within the hydrographical limits of the Kevir is insufficient to produce a lake in its basin. And yet the Kevir still acts like a lake, and, as we shall see later, gives in many respects the impression of a lake.

Our route crosses a broad and open longitudinal valley which runs into the Kevir westwards, and continues eastwards to where the horizon is blocked by another hill, steep on the south side and dipping to the north, and showing that the dip and strike of the rocks are the same all over this region. The view over the sandy belt on the left becomes more extensive, and farther to the west the dunes are seen to rise to a height of 130 feet or, perhaps, more. It is an undisturbed island of sand, carefully avoided by all the routes; the lower road to Jandak also passes round this expanse of sand, and crosses only points or offshoots which lose themselves in the Kevir.

We mount over a series of small furrows to a little threshold of no importance except as a boundary between the longitudinal valley already mentioned and the next, which we keep along all the way to the camp of the evening. Here the "hill of the thousand valleys" is quite near on the left as we march towards N. 30° W. The ground is sandy and very sterile. There are no place-names here, according to my guide, because there are neither springs nor wells in the valley. A small sand belt, half a mile broad, consists of small isolated dunes, at most 10 feet high, among which our path winds. Afterwards pebbles predominate, and no more dunes are seen, but steppe plants grow more closely. It is strange that the conditions in two longitudinal valleys, almost parallel and so near together, can be so different. Why has the

driftsand been heaped up in almost as large quantities as in Central Asia in the valley we have just left, while only some insignificant dunes have been able to establish themselves at one spot in the valley where we are now? All the conditions for the formation of large dunes seem to exist here as well as there. No, perhaps not! For the former valley opens out westwards and passes into the Kevir, and possibly the surface of the Kevir, which at certain seasons lies dry, provides no small quantity of driftsand, and yields it to the west wind on its journey over the sand-dune area.

A black dog, thin and miserable, has of its own accord attached itself to our train; he has run away from the Seruman hut, where there was nothing to be obtained but water. He sneaks, ghostlike, beside me as I walk in front of the caravan, throwing a shadow before him which is not nearly so black as himself. When I ride he keeps beside the camel. The men take a dislike to him and pelt him with stones, but he always comes back again. He makes light of Nevengk's inhospitable reception, and seems to be fulfilling some mysterious mission in following us at any cost. He is an unavoidable omen, a *kismet* (fate), or Ahriman, the principle of evil, in a canine body. At night he lies outside my tent, and then follows the caravan through the desert, but he never becomes really tame. He runs along philosophically, engaged with his own thoughts, and does not trouble himself about us. He receives food gratis, and keeps a good watch, but remains a stranger to every one. He receives the name of Siah-sek or "black dog"; and, coal-black as he is, even to the point of his tail, he is conspicuous against the yellow ground as he rushes about, before and behind and alongside the caravan, as though he were restlessly looking for a lost trail.

It is four o'clock, and still our bells ring at the foot of the "hill of the thousand valleys," which now really deserves its name, for an endless succession of narrow, short, but rather broad valleys issue from between the forks of its spurs. The crest of the chain stands out dark beneath the evening sun. We march still north-westwards, and

94. Halt for Breakfast.

Nevengk to the left, the black dog on the right.

mount to a small saddle in the valley. Before we come to it we have done enough for the day, and encamp in the wilderness. The rock all around is a compact limestone. The absolute height is 3599 feet.

The two sick camels are piteously thin, and the sores on their dewlaps will not heal. They have also sores on the inner sides of their feet, which graze each other as they walk, and have to be bandaged. But at any rate they can boast of a ravenous appetite, and if they can but rest a while they will quite recover. They are spared as much as possible, and carry very light loads.

The temperature sank in the night to 21.9°, and when we set out at eight o'clock as usual, it was still so cool in the north-west wind that we had to walk to keep ourselves at all warm. Immediately beyond the camp we come to the small threshold of the longitudinal valley, from which a new view unfolds itself over a richly clothed steppe and over the higher parts of Kuh-i-Jandak, which were seen at a distance on yesterday's journey. After a time we come to Hauz-i-penj, or "Five-Basin," so called because from this little reservoir it is 5 farsakh to Jandak, though these farsakh are shorter than usual. The water collects under a mud cupola after rain in a small walled-in oblong basin; it is turbid, but quite sweet and cool; a hut is built beside it. The longitudinal valley here runs from west-north-west to east-south-east, and it soon appears that the saddle we have just crossed is a secondary watershed, for the ground still rises in the direction of our route. Here a broad drainage channel runs down the middle of the valley and continues east and east-south-east, and is said to debouch into a southern bay of the salt desert situated farther to the east, which is called Kevir-i-Khur and Kevir-i-Merijun; we shall hereafter make a closer acquaintance with it. In fact, we are now on a peninsula of the firm sand which runs northwards out into the mud lake of the Kevir.

After another secondary saddle we again see Kuh-i-nigu on the left, and pass a small isolated limestone elevation on the same side. Beyond a higher saddle (3917 feet), more trying to the camels, we come again to a *hauz*

or *abambar* named Hauz-i-seh, whence it is reckoned 3 farsakh to Jandak. This basin is larger than the last, and the water, which has a temperature of 41.5°, is sweet and well flavoured.

A caravan of 6 men and 26 camels from Anarek were resting here on their way to Semnan, which they would reach in eleven days' journey. They came from Yezd, and had taken sixteen days to Hauz-i-seh. The men reported that they were in the service of Seid Muhamed Bager Erdekuni, a rich merchant dwelling in Anarek; but their home was Ardekan, which they pronounced in their local dialect Erdekun. They transported tea, cloths, white Indian thread, and henna, an orange dye-stuff, in large bales from southern Persia to the north. The English goods are disembarked in the harbours of the Persian Gulf, particularly Bushir, and thence carried to Yezd, and the men at Hauz-i-seh were now conveying them on from Yezd to Semnan. They were wont to travel always by night, and could cover 7 or 8 farsakh in one night. The camels travel much better in this way; they have been accustomed for generations to the arrangement, and they need the hours of daylight to eat their fill of steppe shrubs. They do not become tired in the cool, calm air of night, and scarcely feel their loads. Our camels were tired because we made them work in the daytime. The men advised us to change our habits and follow their example; but I told them that I had come hither solely to see the country, and that therefore I should have no reward if I travelled on pitch-dark nights.

They formed a picturesque group in the lifeless landscape; they sat on the lee-side of the well vault, smoking, and eating bread with their cups of water before them and a freshly filled pitcher in the middle. One of them went to attend to the camels, which were eating their dinner before starting, for on this particular day they were to travel while the sun was still up in order to reach Jandak before dark. When our camels passed their grazing comrades, these began to gurgle heavily and peevishly, and let their large purple throat bladders hang dangling from the corners of their mouths. When the men saw the

black dog they said it belonged to them, and we begged them by all means to keep their rightful property; but we had not gone far on our way before he came sneaking past us to keep a little in advance. He had evidently been badly treated by the men from Yezd, and when he now ran with his nose on the ground it was certainly not their trail he was seeking.

At Hauz-i-seh our road unites with the lower desert path from Alem, which has been referred to above. To the west, where the Bo-nigu hill stands, is a well called Cha-arabi, which is passed by this route. Here the united track, which becomes more distinct and more worn into the ground, turns north-eastwards, and takes us to the nearer, western, foot of Kuh-i-Jandak. Beyond the purple crest of Bo-nigu is seen, far in the west, a still lighter elevation which stands on the margin of the Kevir, where there is no sand. This hill is called Kuh-i-ein-ul-vaher. All the furrows—dry, often deeply sunk, and troublesome—which we now cross are directed north-west, and open into the Kevir. One of them comes out from a large valley on the right, in the upper part of which the sweet-water spring Dehene-rud-narek is situated, and in its lower part, not far from the edge of the salt desert, white streaks and bands variegate the ground.

After we pass to the right of a small isolated mound, still with the hills running on to the right, the country lies open before us, and we see to the north the Kevir like a sea, with horizontal streaks of purple, yellow, and blue. If the air were clear we could see the distant mountains which stand on the northern side of the salt desert, but the wind now blowing makes the air hazy, and therefore the Kevir has the aspect of a sea with an infinitely distant and perfectly level horizon, where one can only fancy one perceives an indication of the earth's sphericity.

Hauz-i-gezessun is another water-reservoir on the way, at a distance of 1½ farsakh from Jandak. Thence a path diverges to the village Gezessun, which is seen to the north-north-west, and draws its water from the east by means of a kanat. Our road is seen far in advance, winding and stealing in a light stripe over the elevations between

different drainage furrows, which are sometimes 6 feet deep and full of pebbles. Kuh-i-Jandak becomes more distinct, and on the north side of its upper part, turned towards the salt desert, some snow lies.

A furrow with clearly marked terraces runs out of a large valley to the right, and swings suddenly round to the north, running on to Jandak. Here also begins the kanat which supplies Jandak with water, and we follow closely its line of earth-heaps. They become smaller, and at last the water runs out of its subterranean conduit and flows on in a straight surface channel, sunk in an embankment of earth, so that it lies 3 feet above the level ground around. It is protected from evaporation by a belt, a foot broad, of grass and reeds which on both sides form a shady screen above the water. Beside the canal an underground mill (*seng-asiab*) is constructed; a small staircase leads down into the cave, where a horizontal millstone is set in movement by the canal water. Two mulberry trees grow outside a court with a wall and tower —an unusual sight. A little later we pitch our tents in the southern outskirts of Jandak, a town as yellow and dreary as the country round about.

CHAPTER XXVIII

PREPARATIONS FOR A JOURNEY THROUGH THE KEVIR

On our arrival at Jandak I was still doubtful which route I ought to take. Should I really expose myself to all the toil and hardship which was in all probability connected with a ride of 250 miles on camel-back through the Kevir and back, instead of taking the direct way to Tebbes and Seistan? But I wished to obtain a near view of the salt desert, and before the tents were pitched I had conquered my irresolution, and summoned some experienced men, with whom we at once commenced our negotiations.

"Yes, certainly," answered one of them, "you can hire camels, and we can procure you *jambas* or running dromedaries. With the latter one can cross the worst of the salt desert in a day and night, but perhaps the sa'ab is not accustomed to scamper along at such a rapid pace; perhaps you will be tired of riding *chapari* (courier's ride)."

"If you can endure riding *chapari*, I can probably hold out too."

"We generally so arrange the journey that we ride till we are tired of the jolting; then we walk or run a bit, and then mount again. Through the Kevir we hurry the pace, and go in one stage from south to north, only stopping once or twice for half an hour to let the camels eat of the fodder we carry with us. On firm ground we travel only at night."

"I am willing to go with you," called out suddenly a fellow in the crowd. "I have been many times in the Kevir; but I must get good pay. And I can let you have three prime jambas on hire; they are now grazing

5 farsakh off, but if you will have them they shall be here in the morning. I can accompany you through the desert, if you like."

"How much do you ask for the hire?" I asked. "We shall go the direct way to Husseinan, and then from Turut back to Khur."

"Thirty tuman," replied the man, and I was astonished at the reasonableness of the demand, and so much the more as he was to take a fourth camel with him for his own riding, and for which I was not to pay anything.

"How long will this ride through the desert take?"

"That depends entirely on the endurance of the sa'ab and on the weather. If it rains when we are on the margin of the Kevir we must wait; if we are overtaken by rain in the middle of the salt desert the camels cannot take a step, and we must stop and wait until the surface dries again. But if the weather is favourable the journey can be accomplished in ten days, including a day's rest at Husseinan and another at Turut."

We did not carry our discussion further this evening, but the more we talked about it the more eager I became for a forced march through the desert. Now I had no longer any doubts; I would willingly spare the ten days and the little comforts in my tent warmed by the fire of the mangal; now at last I would, whatever it cost me, see the desert close at hand. Of my own men, only Gulam Hussein was to go with me. He was a native of Khur, and had been in the Kevir before. There was no need of tent and bed, only warm clothing and provisions for a few days.

Hitherto my journey had been monotonous and safe; now, at any rate, we should run some risk, and have a change in our old humdrum existence; and then, if it really were so exhausting as it was said to be, it would be a welcome and delightful rest to return to the peaceful life in our own caravan. I could scarcely hope to acquire any valuable geographical discoveries, for a few Europeans had crossed the great Kevir before; but at any rate I should obtain a thorough and varied insight into it by crossing the desert along two different lines.

At seven o'clock in the evening was heard the heavy

95. Our Guide, Ali Murat, and his four Camels which carried us through the Kevir.

slow tinkle of bells—it was the Yezd caravan which came, and would continue its journey on through the desert. Kerbelai Madali, who had come with us thus far, and had done us excellent service by his thorough knowledge of the geography of the country, besides being cheerful and jovial, now received his recompense, and was to return to Anarek next morning. In the evening the sky was quite clear and the air was cold, below freezing-point—a good sign, for we must have fine weather in the desert, the men said. The moon was waxing, and would soon illumine brightly one of the most dismal regions in the world, and this was an advantage to travellers by night. I might be robbed and plundered after parting from my own men, but why should that happen? I initiated all my men into my plans, and appointed Abbas Kuli Bek chief during my absence, and told them that those who did not obey him would be discharged. I was greatly astonished when Mirza put in, "Then Abbas Kuli Bek becomes our *chargé d'affaires*," but it turned out that he had caught up the word at one of the legations in Teheran, and that was the only French he knew.

On January 28 also it was clear after a minimum of 22.1°, and promised well for our journey. We noticed the signs of the sky more diligently than ever, for now everything depended on the weather. The day was spent in preparations and discussions; and as usual I questioned some knowing men on the condition of the place and the geography and roads of the country.

The highest administrative official of Jandak bears the title of *keluntar*, and is immediately under the orders of the *naib-i-hakim* or governor's secretary in Khur, who in his turn is subordinate to the *hakim*, or governor, of Semnan. Though the whole desert interposes a natural boundary between them, Jandak is subject to Semnan. The town has about 250 houses and 800 to 1000 inhabitants. Its absolute height is 3274 feet.

Melons and water-melons are cultivated, grapes, pomegranates, apples, pears, and apricots, figs, and mulberries, red and white beet, onions, green vegetables, wheat, barley and millet, and cotton. Sheep-breeding and the

transport of goods are also important means of livelihood. The village owns 3000 sheep and 600 camels, besides a number of asses and mules, but only a single horse. There are no horned cattle; fowls are kept in all the courtyards. In winter the camels are for the most part released from work, but at other times they are employed in caravans to Shiraz, Yezd, Shahrud, Teheran, Sebsevar, Meshed, Ispahan, and Tebbes. The most numerous caravans, which travel from Yezd and other places in the south to Semnan, Damghan, and Shahrud, pass through Jandak. Almost every day some caravan sets out from Jandak to cross the Kevir, and when the traffic is most lively between 100 and 200 camels may be counted in the day. Most seem to travel in the cold season, though it is easier to cross the Kevir in summer, when there is little or no precipitation, and the surface of the ground is dry, but the heat is unbearable, and the well water salter than at other times. For two days past the caravan traffic had somewhat fallen off, but this day and the preceding small parties had passed Jandak, two for Shahrud and one for Anarek.

The north-going caravans are usually laden with cloth, cotton and wool, henna and other dye-stuffs, Indian tea, cinnamon, pepper and other spices, etc. Those travelling in the opposite direction carry sugar, naphtha, oil, Russian cloth, iron, and various groceries to Yezd. Jandak is, indeed, the centre of a very great and important caravan traffic between northern and southern Persia, and is therefore less cut off from the outer world than Tebbes, for example. Jandak is connected with Khur by a direct road, 17 farsakh long, through the villages Pish-i-gesu, Cha-nu, Seri-i-gudar, and Abbasabad. Like Husseinan on the northern edge of the Kevir, Jandak is a halting-place and point of departure on the southern side for caravans on the way to the desert. They are like coast towns on a landlocked sea. A caravan going north is glad to rest a day or two in Jandak, and does not set out till the weather seems settled, and then hurries on as fast as possible to reach Husseinan safely. And caravans which reach Jandak from the north give themselves a rest after

their forced march, pleased at having the dangerous desert behind them.

The Persians in Jandak seem themselves to feel as though they lived on a coast. According to tradition the Kevir in Nushirvan's time, that is, 1350 years ago, formed a colossal lake, into the western side of which a large river, the Kara-chai, coming from Hamadan and Saveh, debouched. There is some truth in this tradition, and to the traveller who crosses the Kevir it gives the impression of a vanished lake. On the whole the climate here, as in Central Asia and Tibet, is becoming drier, but it would seem that desiccation does not proceed regularly in all parts. At least the people in Jandak affirmed that 200 years ago a direct road ran through the Kevir from this place to Semnan. But this road is now totally wiped out; it was abandoned because a salt lake was formed to the south of Semnan, and it encountered a river from Khar in the west. It must not, on that account, be concluded that the flow of water, the humidity and the precipitation, increased in this region. The exceedingly shallow and flat lakes in the Kevir are very ephemeral phenomena, and probably pass away still more quickly and easily than the lakes of the Lop country in Eastern Turkestan. A shallow salt lake is soon filled up with solid matter, and the water is forced to seek a lower depression. In this way they move about in course of time, and now it is the turn of the old road between Jandak and Semnan to lie at least partially under water.

The Jandak natives had also some knowledge of the road which formerly led from Cheshme-kerim to this place crossing right through the desert, but they said that it had long been abandoned, partly because there was no use for it, and partly also because the desert in this region had now been impassable for years. We had, therefore, no cause to be vexed that we did not try it, though at Kuh-i-nakshir we had been tempted to make the trial. The old herdsman who there told us it was impossible had spoken the truth.

From such information about old routes one can, however, draw interesting conclusions. They may certainly

appear to contradict the fact that the climate is becoming drier. For, if the Kevir is drying up as a whole, the ways in use 200 years ago ought to be still more practicable now. But this circumstance also is connected with the exceeding evenness of the Kevir and the consequent transitoriness of the collections of water. The depression which originally existed here, and was at one time filled with water has been gradually silted up and almost entirely obliterated by exceedingly finely divided particles of solid matter washed down by water from all the high country around. But though the Kevir may seem to the eye a perfectly level sea surface, there is no reason why it should not be covered with very flat undulations. To begin with, it is very likely that cavities are formed in its central parts which are farthest removed from the margin where rivers and brooks deposit their mud. The Persians have a clear perception of the existence of a rise of level caused by fresh deposits. Thus, for example, to my question whether any traces or marks of the old road to Cheshme-kerim were left, they replied, "*Ne kheir sa'ab kevir bala shud est*" ("No, sir, the salt desert has risen"), that is to say, a new layer of mud has been deposited on the old, obliterating all traces of the old road.

However, I should now have myself an opportunity of seeing this misunderstood and ill-famed Kevir, and I also had a feeling that I was staying and waiting at the coast of a dangerous sea, which had to be crossed in fragile boats. So much was quite evident, that the only danger we ran was due to rain. To us there was a double risk, for if we succeeded in crossing to the north, we might be prevented from returning and have to wait on the northern margin for weeks before we could join our men again. In any case I should obtain exact values for the breadth of the desert along two directions, and I should be able to follow and set down its coast and contours over a long extent. With the help of the observations of other travellers in or around the Kevir, I should be able to draw a very accurate map of the limits of the salt desert.

While waiting for the new ships of the desert, I had nothing else to do but sit and talk with the townsmen,

draw, photograph, and stroll about the town. With the kanat we followed yesterday, and which always carries sweet water, another unites which is salt and only half a farsakh long. It always carries water, but fluctuates with the precipitation. In dry years the stream falls off, and eight years ago, when the precipitation failed, the canal was nearly dry; last year and this year it has carried plenty of water. The precipitation is very variable and unreliable. When a light veil of cloud passed over the whole sky at one o'clock I was told that it did not necessarily betoken rain, for sometimes the clouds were dense though no rain fell. The natives of Jandak are as pleased with rain as the north-going caravans complain of it.

The summer is certainly warm in Jandak, but not so burning hot as in Khur or Tebbes. But that the heat can be oppressive is proved by the *badgir* or wind-catchers on the roofs of several of the houses. They consist of four-sided towers with long vertical loopholes on the top, which catch the wind above the screening house-roofs, and lead the draught down into a room, which is thus kept tolerably fresh and cool in summer. On some badgirs the slits face to all four points of the compass, on others only to the north, which seems to indicate that northerly winds prevail in summer.

The streets and lanes of Jandak are uninteresting in every sense; they are small walks and passages 2 yards broad, shut in between walls 6 to 10 feet high, which are erected to protect the gardens and houses. No windows look on these lanes, but only very small paltry doorways with wretched doors. The interiors of the courts are jealously shielded from the eyes of the world. It would be dreadful if profane eyes lighted on a Susannah in a *zenana*, or women's house on a basin or little conduit. Two small mosques with yellowish-grey cupolas do their best to look imposing among the mosaic of insignificant mud houses, but everything is as grey and yellow as the desert that day and night encompasses the town.

At the southern outskirt is the burial-ground, with its simple monuments of clay. We pitch our tents beside it,

and have the dead for our next-door neighbours. There are no caravanserais, but only the ruins of an old caravan shelter. The travelling dealers who visit the town with their camels encamp outside this rabbit-warren on the great market-place for caravans, where the townsmen, if they please, can get news of the outer world. There is also a smaller *meidan*, or market-place, in the midst of which the carcase of a camel lay steeped in a pool of yellowish-red stagnant water. Kuche-bagh is a garden by the canal, where a bed of water-weeds flourishes in the slow current.

To-day scarcely any people showed themselves abroad. As I stood by the old fort, there were only two persons in sight, but news of my promenade must have been spread about, for after I had been out drawing for two hours I was escorted by quite two hundred men and boys.

This fort is the only thing worth seeing in Jandak, though it is much ruined. It is in the form of a quadrangular wall, with corner towers and gateway, and presents a picturesque, genuine Mohammedan, Asiatic aspect. The foundation or the base of the wall is built of stone, but elsewhere sun-dried bricks are the building material used. If they are questioned as to its age, the wise men of the town answer that it was erected by the great and glorious Nushirvan, the king with the immortal soul, who ruled Persia with a powerful and just hand between the years 531 and 578. However that may be, the style of building and the condition of the fort show that it must be of very great age, and, no doubt, Jandak is at least as old as the fort. And even if it is not more than 200 years old, its walls are a striking proof that this spot was formerly of much greater importance than at present, and that the route running northwards through the Kevir needed strong protection and a point of support. And it proves also that the road between Jandak and Husseinan is an old route, and that the salt desert, where it crosses, has not changed its character for hundreds of years. It occurs to one that possibly a meridional swell in the ground lies across the Kevir, dividing the salt desert into two basins or depressions, and that it is precisely on this ridge that the roads

run from Jandak to Husseinan and from Khur to Turut. It does not, perhaps, need to be more than 3 to 6 feet above the rest of the Kevir in order to afford caravans a sufficiently safe passage.

To the west of Jandak stands a small hill, Kuh-i-berench, where copper is said to occur, but the valuable metal is not extracted because there is no one who understands the work. To the district of Jandak belong twenty-three insignificant hamlets, almost all lying to the south of the main town.

The camels promised were led in good time up to our tents, but they were thin and small, and did not seem able to bear a hard journey, and therefore they were rejected at once. Just at the right moment appeared another man, who declared that he had six stout camels, of which I could select the best four. If he did not lead me across the desert and back in ten days, I should not have to pay a single kran of the 30 tuman agreed upon. He also requested that I would provide fodder for the camels.

We had, therefore, to remain another day, and really two days' rest was not at all too much before such an undertaking. The worst was that a change to bad weather seemed to be coming. With a northerly wind the sky was much overcast, and late in the evening a fine drizzle fell. The barometer fell, and the temperature was higher than usual, 31.8° in the night.

The black dog did his best to keep us awake. He stood by the hour barking at his own echo from the walls of Jandak, and it was vain to hope that one side or the other would grow weary. The dog was indefatigable, and the echo must always have the last word. Either the dog must be driven away or the walls must be torn down if we were to have any rest. Melodiously rang the bells in the night when the last caravan that had arrived set out on its long journey through the desert.

In the night and morning it snowed and rained by turns, and all day long the sky was covered with dense clouds. If they discharged themselves the desert would soon become quite impassable, the men of Jandak said. After a short but heavy downpour the upper surface of the desert becomes so smooth and slippery that the camels

stumble and fall as on ice, while if the rain is steady and of long continuance the briny soil of the Kevir is soaked to a depth of 2 or 3 feet; the camels sink helplessly in the mud, and a caravan which happens to be in the midst of the desert under such circumstances may encounter the greatest difficulties. The camels understand the situation, and put forth all their strength, but they get tired, sink in, and are lost. Weather such as we had now made it imperative to wait, and therefore we consoled ourselves for the late appearance of the new camels. But at last a message came that the little caravan would be ready in the camp early next morning.

Here also it was affirmed that the south-east wind was wont to bring precipitation with it at this time of year, while the west wind made a clear sky. An exception to the rule occurred, however, at nine o'clock at night, when a strong south-east wind swept away the clouds and raised the temperature several degrees. At one o'clock it was 50.2°, and at nine o'clock 52.7°; as a rule it is twelve to fourteen degrees colder at night.

The caravan was ordered to stay three days at Jandak and then march in five days to Khur, there to await us. Abbas Kuli Bek was responsible for the cash, and was to make all payments, which were to be entered and accounted for by Mirza. This system was dearer, for the Persians must always have their rations. Our small equipment was arranged; the provisions consisted of six fowls, two score of eggs, pomegranates, butter, tea, and *penir*, a kind of cheese, and fresh-baked bread. We took straw and cotton-seed for the camels. We had a sack of sweet water and two sacks of fuel and charcoal. The instruments and note-books I wanted were put in a soft bag. Instead of a tent I took the large camera stand, which, covered with a Caucasian *burkha*, would be sufficient to give me some shelter from the rain.

The success of the enterprise seemed still very uncertain. The temperature fell in the night to 38.3°, and in the morning I was awakened by the rain pelting against my tent. The prospect was hopeless. The hills to the east and west disappeared in the mist, and in the north, where

95A. Boys at Jandak.

the salt desert's dangerous domain awaited us, the clouds hung like dark walls and curtains. But now the four camels stood ready. Jambas, or riding camels, they were not; they jolted uncomfortably when I tried them at a quick pace. But what did it matter? if the weather continued to be unfavourable we should be compelled to turn back at the margin of the desert or travel slowly.

In the forenoon a trading caravan of 100 camels arrived from Yezd and encamped on the plain below Jandak. The leader said that they dared not travel in this weather; they intended to wait till it cleared up. But I would not stay any longer, so I mounted my new camel, which at its usual pace took 220 steps in 165 yards, or $2\frac{1}{4}$ miles in the hour.

The men and boys of Jandak came out and looked on as we moved off, and the squalid huts and miserable gardens, with the fort looking down on them, vanished, and the grey and yellow desert spread out on all sides.

CHAPTER XXIX

WAITING IN VAIN

Our four camels were reluctant. They knew that the path we followed led to the desert, and that in a few days they would be put on short commons. But they soon submitted to their fate, and marched steadily and quietly after the man who led the first. I was myself carried by an *arvane*, a mare, with such a smooth and easy action that I believed I could hold out a long time on its back. On the left ran a large erosion furrow, in which another caravan from Yezd was encamped. The men lay looking at the desert, and wondering if they would be caught in rain from a sky that looked far from promising. When they saw us going in the direction of the desert two of the men asked if we had any particular reason for expecting good weather, but we replied that we wished to be near the margin in case the weather cleared.

Low mounds are seen on both sides of our route, becoming flatter and lower towards the north, and finally passing into perfectly level ground, and the path we follow, now between scattered shrubs and now over sterile soil, also descends slowly towards the Kevir depression. In some small hollows we have already a foretaste of the desert, the ground being loose, soft, lumpy, and sprinkled with white salt. Far to the east we can catch just a glimpse of the hills rising above Khur-i-gez and Aruzun, the locality where we shall "land" after having twice crossed the desert sea. Our guide is very talkative, and beguiles the hours of march by relating all he knows. He says that the eastern route is the more dangerous; on the

western one has to wait two or three days, if rain falls, till the ground becomes dry enough for the camels to travel, but on the eastern it takes five days. He says that the rain-water that flows at times northwards through the furrows we cross or follow never forms surface lakes on the Kevir, but subterranean pools with their surface only just below the ground, and therefore it is so dangerous to pass over them. The erosion furrows have double terraces, and on their tops a layer of pebbles rests on yellow and green clay.

We have been quite two hours on the march when we pass Hauz-i-deheneh, a water-reservoir in ruins. Then we keep near an erosion furrow called Rudkhaneh-i-hauz-i-deheneh, with mounds of clay 60 feet high on its left bank. Their slopes are grooved like the rind of a melon, and when the welcome sun throws a gleam of light over them they stand out sharp and bright against the northern sky, which is still steely grey and dark with clouds. In the sheltered bed grow small tamarisks on their root clumps, sometimes watered by its stream. When we leave the bed to cross its western flank at a point called Kotel, or the pass, we have come half-way, having covered 2 farsakh in three hours. The land then becomes more broken—a labyrinth of furrows between gently rounded hillocks. They gradually become smaller, the groovings disappear, the hillocks become lower as we advance northwards, the country is smoothed out and becomes more level.

To the east is seen a yellowish-red streak, a sandy expanse lying north-east of Jandak; it extends northwards to Khur-i-gez and abounds in steppe bushes, on which graze 2000 camels from Khur, Jandak, and Anarek. Their owners pay 1 or 2 kran per camel to the representative of the Crown in Jandak for the right of grazing. The wells Shur-cha, Cha-no, Cha-deras, and Ussahen are situated in this sand belt, while the following wells and springs lie in a row along the edge of the desert: Senjet, Geroven, Cheshme-gezi, Sovur, Gezu, Khormau, Cha-dagher, Cha-gamber, Cha-Ibrahim-sehra, Cha-penu, Aruzun, and Khur-i-gez; of these, Sovur, Cha-penu, and Khur-i-gez are salt, the rest sweet.

The path becomes more even, the pebbles smaller; layers of gypsum protrude like tilted boards from the ridges of clay and enclose on all sides a flat arena. We have been four hours on the way and have covered 3 farsakh; if the guide's data are correct we shall then require forty hours to traverse the 30 farsakh of salt desert. My riding camel has crossed the Kevir thirty times during the eight years she has been at work, and she is ten years old. In this district, therefore, the camels begin to work at two years old, and on that account remain small. Our large camels had not been broken in before they were three or four years old. At regular intervals the cluck in the throats of our bearers is repeated, for they ruminate all day as they swing along.

The country becomes more desolate, poor, and more solemn as we approach the great desert, and the feeling of its proximity is heightened by the gloomy, dark purple clouds which hang over us at sunset. It grows dusk, night is coming on, and the desert before us is enveloped in its murky shroud. The guide hurries on in front to collect fuel while Gulam Hussein leads the camels, mine coming last. We march on in the gathering darkness and not a sound disturbs the peacefulness; it is as silent as in a tomb. The ground is perfectly sterile, the moon tries in vain to break through the heavy masses of cloud which soon gather together, so that not a gleam shows us the place where the lantern of night is hidden.

Now the guide comes with a large armful of fuel. He points to something which is just visible rising up before us in the darkness, and says that it is the dome over a *hauz* or water-reservoir, and that we must pass the night here and set out as early as possible in the morning. We encamp beside a ruined wall sheltered from a slight breeze from the west; it is done in a moment, now that our baggage is so light. The stand is set up and the burkha thrown over it; a candle is lighted, and I take out my note-books to record the events of the day while the men make a fire and infuse tea. And then the first cold chicken is served up with bread and three eggs, and we enjoy our free life more than usual, now that we are so

few. My travelling companions sit under the open sky and smoke their pipes. There are no living creatures but ourselves in this God-forsaken land.

Then comes suddenly a violent gust from the north sweeping over our lonely camp. It would throw down my improvised tent if I did not catch hold of the stand just in time. Two minutes' calm and then another gust more violent than the former. Sparks fly out of the camp fire. *Bad-i-kevir*, desert wind, says the guide with a serious expression. There is impenetrable night around us and the sky is pitch black. Some large heavy drops pelt down on the burkha, the wind rises and becomes continuous, there is a piping and moaning in the corners, and a storm is coming on. The rain also increases and becomes thicker, falling in a steady shower and noisily rattling on my tent. The men still sit by the fire with their cloaks over their shoulders, and I creep in and try to take no notice of the dropping and streaming from the burkha. We must finish our meal, and we cannot help it if it rains.

But soon it becomes too bad; such rain I have not experienced all the way from Trebizond; it pours down, splutters and splashes in the mud, it is heard hissing far and near, and dashing on to the ground in gushes. It is a dense, close, dismal rain, and its persistent rush gives no hope of its stopping. We have just reached the margin of the Kevir, and are on the point of venturing on a journey over the flat quaking marsh when the only kind of weather which can interfere with our plan breaks loose. What good is it to be energetic and to make up one's mind to a venturesome resolution; it is useless to fight with the elements. I hear the splashing outside with a feeling of vexation, knowing that every moment the desert is becoming worse for traffic. It is as if a powerful being were building up an insurmountable wall to make us turn back.

But we could not long endure this drenching. The men took possession of an anything but inviting hut in ruins, a miserable den under a decaying roof, and thither we tramped through the splashing mud and made haste

to get our things under cover and revive the dying fire. And there we sat, the three of us, and stared into the flames, and mutely confessed that our plan of starting off at three o'clock in the morning had vanished in smoke. Nevengk, who had followed me unbidden, lay outside and howled, disgusted at being wet through and yet unable to quench his thirst. Persians do not allow dogs indoors, so Nevengk had to keep company with the camels.

Nine o'clock; it is 9° above freezing-point, the wind has fallen, the rain pours down, and the noise of the tremendous deluge penetrates into our den, as though laughing us to scorn. I go out to read the instruments and feel that the ground has become soft; I sink in the mire, which spurts up under my feet. Wet and dripping, I creep back into the cabin, a dirty, ill-smelling hole full of smarting smoke.

"How long will the desert take to dry up if it continues to rain all night?" I ask.

"Three or four days."

"And if it still rains to-morrow also?"

"Ten days."

"We shall see what it is like in the morning, but we will not wait in this hole for ten days, exactly the time required to cross the desert twice."

"It is already impossible to go out into the desert, sa'ab; at any rate, we may sleep till morning."

To pass the time the men begin to relate their experiences and adventures in the Kevir. How many caravans have been lost in this frightful desert! Gulam Hussein was two years ago with a caravan which lost five of its camels in consequence of a very violent and heavy snowstorm. The snow melted at once on the salt ground, which became so wet and smooth that the caravan had to encamp in the middle of the Kevir. And as it also blew hard from the north the camels died of cold, and one man lost his feet and became a cripple for the rest of his life. The guide says that it is impossible to conceive anything more exhausting and wearisome than to walk through the mud. One sinks in up to the knee at every step. If one goes quickly in order not to sink in

so far, one loses one's footgear and becomes deadly tired, and if one goes slowly one sinks in so deep that one can hardly pull the feet out of the viscous, tenacious mire. He says that the Kevir is like a sea, and that it is a serious undertaking to venture over it.

He says that the three caravans we left at Jandak when we started will, if it continues to rain over to-morrow, leave their goods and return to Yezd with the camels laden with charcoal. This is manufactured here from a tree called *badam-i-talkh*, or wild almond, which grows in the valleys of Kuh-i-Jandak. If a trade caravan is caught by a downpour of rain in the desert the camels are hastily unloaded, the loads are piled together as well as can be done and are left behind, and there they may remain a month or two. They do not sink in the mud, but if the loads consist of wheat the grains sprout so that the sacks are clothed in vernal green when they are fetched away. After the camels have been relieved of their loads, their drivers try to get them as quickly as possible safely to the nearest "shore." But if the rain promises to be of short duration they stay where they are, waiting till the surface of the ground becomes so dry that the camels do not slip. It may happen, however, that other showers fall, and the men wait, only to be deceived again. At length the store of water they have carried with them comes to an end, and they have to think of their lives. They hurry towards the land, struggling through the slough. The camels behind avoid the footprints of their predecessors, which have left dark, yawning holes. They have not gone far before the first victim, which cannot get along any farther, has to be abandoned; and then one after another is lost in the mud. When the last is left to die the men have only themselves to look after. They often grasp one another's hands in pairs to keep their footing better. They have long parted with their footgear, and soon their trousers also are left in the mud. They are eager to reach the tracts of the desert which consist of salt as hard as rock. They are, indeed, under water, but walking there is a rest after the mud. But it is exceedingly dangerous to approach

these salt flats in thick weather, when it is impossible to steer by some distant hill, or at night. There is, of course, no path, and even if there were, it could not be seen through the water. A man, therefore, runs a risk of missing the way, going astray in the Kevir, and perishing at last from thirst and exhaustion.

Both Gulam Hussein and the guide affirmed that travellers who find themselves in the Kevir have no control over their senses; they are bewitched in some strange fashion. If the weather is good and all keep together there is no danger; they have only to follow the camels, which never lose their bump of locality, and which try for their own sake to cross the desert with all speed and along the shortest line. But if a caravan halts and rests an hour or two in the night, and a man sleeps and is left behind, and awakens to find the caravan disappeared, and gets up in a hurry to overtake his party, he always goes astray. He has totally lost his bump of locality. It is too dark to see the trail on the hard soil. He hears the guiding sound of bells becoming fainter in the distance, but thinks that it comes from the opposite direction. But when the clang of the bells dies away and is totally hushed, and he also notices that the air is quite still, he understands that he has been going in a wrong direction and turns back. Not till the sun has risen does he understand the situation, and in an exhausted condition comes up to his comrades.

Both my men had experienced such adventures. Once Gulam Hussein had overslept himself, and on awaking had made off in a wrong direction. He had walked a farsakh before it occurred to him to examine the trail and he found out his mistake. But when he laid his ear to the ground and heard the ring of the bells very faintly, he then perceived plainly that it came from the opposite direction, whither the trail pointed. He was then so tired that he became stupid, and could not make up his mind whether to go north or south, and so sat down and waited. At last, when it dawned and he saw the trail clearly, he could decide on the right way. How vividly this story reminds one of Marco Polo's description of the Lop desert!

One is almost inclined to believe that he has confused the Lop desert with the great Persian desert.

About the way through the Kevir, which we intended to take, and which was now every minute becoming more soaked, our guide, Ali Murat, gave the following report. From the neighbouring shore we had 4 farsakh before us of kevir and then 2 farsakh of *nemek*, or hard salt deposits; then again 12 farsakh of kevir and 1 farsakh of *nemek*, and lastly 9 farsakh of kevir to Husseinan. From the camp where we now were it was reckoned in all 30 farsakh to this town in the north. Between Turut and Khur there are first 4 farsakh to the margin of the salt desert, then 6 farsakh of kevir, 1 farsakh of hard salt, 12 farsakh of kevir, and again 1 farsakh of salt and 4 farsakh of kevir, and then 2 farsakh to Khur-i-gez, 1 to Aruzun, and 8 to Khur; here 26 farsakh are counted as lying in bad desert. It might be taken for granted that, as three caravans were now waiting at Jandak, so some parties must be staying at Husseinan waiting for good weather. If any caravan comes from the desert and reports that it is passable, the waiting trains set out at once, if they have not already preferred to turn back.

Thus we talked while the rain pelted outside. At ten o'clock the rain gave place to snow, and the splashing and swishing were no longer heard, and it seemed delusively quiet, while the precipitation was as heavy as before, and the snow melted as soon as it touched the ground. The only consolation we had was that the smoky den was dry inside, and after Gulam Hussein had scraped away the rubbish in a corner where many caravan men had rested, we set our simple camp in order and crept into bed.

When I awoke at seven o'clock my two companions were crouching over the fire, keeping quiet in order not to disturb me. They were warming their hands over the fire, and no wonder, for a westerly wind blew hard, the minimum temperature had been 28.9°, and there was still frost. The sky was thickly covered with clouds, and the weather looked anything but inviting. The west wind, which is here called *bad-i-shahriyar*, or city wind, because it comes from the direction of Teheran, is at this season very cold and raw,

but it does not usually bring precipitation with it, like the east wind or *bad-i-khorasan*. The wind was favourable to us, for if it continued long and remained dry, it would accelerate the drying of the surface of the desert, and if the sun, which now so obstinately concealed itself, would peep out the drying would proceed still more quickly.

Winter raves and howls outside; it rushes whistling through the holes of the ruin, and the smoke is beaten down from the humming ventilator. We sit wrapped up in our outer clothes round the fire in doubt as to the course we ought to take. We have two alternatives to choose from: either to remain where we are till the desert is dry, or return to Jandak and then proceed to Khur in order to cross the Kevir with better luck to Turut, and lastly travel by the great eastern route round by Tun to Tebbes. It is quite evident that the day is lost. We can go without the least difficulty only 2 farsakh, or so far as the ground is sandy and slopes towards the shore, but then follow 4 farsakh of kevir, the most difficult part of the way, for the salt ground-water stands here so near the surface that it requires longer than elsewhere to dry up. North of the hard salt belt, *nemek*, the Kevir is more favourable and dries more quickly. If any of the Jandak caravans went in front and trod down a path we could follow in its track without danger. After the rain in the night the mud cannot be so very deep, and after a train of camels has ploughed up a furrow the ground usually dries more quickly in the ditch and is less slippery.

At our camp we were in a flat depression surrounded on all sides by low hillocks, and as this is the last place suitable for collecting water, five cisterns have been constructed at various times, of which two are built of burnt bricks, the others of sun-dried clay, and therefore fallen to pieces and out of use. They are fed exclusively by surface water and only after heavy rain, and have no connection with springs or subsoil water; the latter seems to stand at a depth of 8 fathoms and to be salt.

The newest cistern was erected four years before, and the money for the work was bequeathed by a man in Anarek. Over the *hauz* or rectangular basin, a brick vault has been

erected in the form of a dome, and in the subterranean crypt thus produced the height from the bottom of the walled-in cistern to the roof is a little more than 13 feet. The whole is called an *abambar*, or water reservoir. The basin is 20 feet long by 8 broad, and its bottom lies 11½ feet below the surface of the ground. If the basin is at any time filled with water, there is then only 3 feet between its surface and the roof, where daylight enters by two small openings. A corkscrew staircase under a vaulted roof leads down to the bottom of the crypt, by which the water can easily be reached even when it stands at its lowest. At this time the bottom was dry, and the mud deposited there had cracked. But a tendency to moisture was noticeable after the rain of the night. During the continuous rains of spring the cistern is generally filled so full that the supply of water lasts through the summer. Caravans coming from the north sometimes take the liberty of watering their camels from the cistern instead of waiting till they reach Jandak, 4 farsakh farther south. But they do it by stealth, for the cisterns are intended only for human beings, and those who water their camels from them are fined by the authorities of Jandak if they are caught in the act.

The ruin in which we took refuge was connected with the Hauz-i-Haji-Ramazan, named after a man from the village of Ferrukhi near Khur. This Haji Ramazan had, twenty years ago, bequeathed 100 tuman for its construction. A *hauz* at the edge of the desert is a boon to wayfarers. How many have come staggering out of the desert, half dead with thirst, and have moistened their parched throats with the cool sweet water! The man who provides by his liberality such an alleviation for his fellow-men gains merit for himself in the sight of Allah. Therefore such works of charity are common in Persia.

But how does the water find its way into such a *hauz*? some one may ask. Let us, then, visit another of these simple and ingenious contrivances which, though much ruined, gives a good insight into the system. It also has its staircase going down to the cistern, which in this case is round, 23 feet in diameter, and protected from

sunshine and evaporation by a vault. Its walls of burnt brick are plastered to prevent the collected water from filtering through. A small canal runs into the rotunda from a mud flat, 4800 square yards in area, and surrounded by a low embankment. Into this little mud-covered depression run several of the erosion furrows which rise in the southern hills. They are excavated by rain-water, but only after heavy continuous rain do the remains of the floods, which have not evaporated or been sucked into the ground, reach the depression, where a large part of the mud carried with them is deposited in a fresh layer, while the water flows on along the small channel into the round cistern. It usually requires a good fall of rain to fill it up to the brim, for its depth is 6 feet and its capacity about 2100 cubic feet. Owing to the roof and the impermeable walls the water remains a long time and keeps comparatively cool even in summer, for it lies below the surface of the ground. This reservoir also was now quite dry. No water can flow down so far before the surface of the ground is soaked; it sinks into the dry soil. But a puddle was formed in the mud after the recent rain, at which Nevengk could quench his thirst. Even a well 36 feet deep did not contain a drop of water now; at its bottom the temperature was 59.7°, while it was 39.2° in the air outside.

To pass the weary hours I take a walk northwards with Ali Murat. In this direction our camping-ground is surrounded by a bastion of hillocks, whence we can see the ground falling towards the margin of the salt desert. The soil has here a large admixture of sand and gypsum, and is not at all slippery even after rain. But soon we come to a belt where, in the old camel track, tramped down and sodden with rain, I can thrust my stick 2 feet down, and when I draw it out again there is a squelching sound in the water-filled hole. There is no danger in going from Hauz-i-Haji-Ramazan as far as a point called Ser-i-do-farsakh, or the "beginning of the two farsakh," for here begins the Kevir proper, and the difficult dangerous slough. But long before this we pass creeks and branches of true kevir, dark brown and level, but lumpy as if burst up into small bosses and bubbles. Where the sloping

ground passes into the level, one has quite the feeling of standing on a shore; to the north the desert stretches out of sight like a sea. The small ponds of water left in the path are sweet right up to the shore, but out on the level Kevir the water is salt. There the puddles are very rapidly soaked up into the ground, turning it into mud.

In the short distance we walked we saw several skeletons of camels which, after having travelled right through the desert and so nearly reached safety, had not been able to reach Jandak. Ali Murat said that the camels which are abandoned in the desert all die in their usual lying posture, that is, resting on all four knees. They only stretch out their heads and necks, and have a decided objection to lie on their sides, probably because they know that they will not be able to raise themselves again on to an even keel when once they are stuck fast in the viscous mud. And he declared that when men coming from the north have fortunately crossed the desert and emerge on to sandy ground at Ser-i-do-farsakh, and see the domes of the water cisterns in the distance, they are indescribably relieved and delighted, and think that they have reached *bihesht*, or paradise.

No islands of sand or solid rock rise from the level surface of the Kevir along the two routes we intended to try. There is not the least point of support of solid ground whither one may resort for refuge. In every direction, as far as the eye can see, the even, treacherous sea extends, and on its surface one experiences a kind of giddiness, or rather a longing for the shore. One has no rest till one comes to land. As little time as possible is spared for resting and feeding the camels, and men hurry and scurry along to get out of the desert before they are overtaken by rain. How different from the Takla-makan! There one looks round with eagerness for a sign of a rain-cloud, and welcomes a shower as a boon from heaven. Here in the Kevir men fear it, and try to escape it as an evil spirit.

I had myself gone not more than half a farsakh to the north, but when I came back to our den I sent off Gulam Hussein to Ser-i-do-farsakh to see the state of the

desert, and whether it was possible to make a start. At the same time Ali Murat betook himself with his four camels to a place among the hillocks where some scanty steppe shrubs grew, and where he would also look for firewood. I was therefore left quite alone in the space round this wretched well, which yielded no water, and outside which Nevengk sunned himself in the wind. The sky had become quite clear, and the sun together with the wind would soon dry up the upper layer of the desert—so I hoped. The dog lay quiet and silent during the four hours we were left together. There was no sign of life in this dreary waste, the outermost reef on the way to the desert sea.

I breakfasted on pistachios, lay and read a French novel, made notes, and, map in hand, mused over the adverse fate which kept me bound just at the margin of this desert I had hoped to overcome with such ease. It had closed its gates on my very nose, just as a bridge which is raised at the moment one is about to cross it. I went out again to look round, delighting in the wind which was doing its best to neutralize the effect of the rain.

At length Nevengk began to growl and bark. Ali Murat came tramping up with his camels loaded with capital firewood, dry stems of saxaul, and he immediately made up a fire, as it began to feel cool again in our hole. In the midst of the smoke and dust I drew, having nothing else to do, my honest guide, and the portrait was not yet finished when Gulam Hussein came in and declared that it would be quite impossible to cross the Kevir for three or four days, and then only if it did not begin to rain again. As an undeniable proof, he had brought with him a lump of the mud to show me. He had tried to go out a bit into the Kevir, but he found the ground as slippery as soap. When it is like this a man loses control over his movements. He tries to keep his balance, but stumbles over small inequalities, and slips down into holes, and cannot calculate his step, and tries in vain for a firm foothold. It would be still worse for camels. They would tumble down, and then refuse to get up again. No, the Kevir is not for us, was his opinion; it does not dry so

quickly, but is like a soaked sheepskin coat spread out to dry on damp ground, and that takes time.

Again we discussed the situation thoroughly, and suggested this and that; and at length came to the conclusion that it would be wiser to go to Khur and cross the desert to Turut. While we were still talking about it we heard in the distance a well-known sound—the ring of caravan bells. We all three rushed out; there was nothing to be seen, but the bells sounded louder and louder from the direction of Jandak. A few dark specks at length came into sight from between and over the yellow hillocks in the south, and were followed by others—a long row. A caravan was approaching, no doubt one of the three we had seen at Jandak. It was a solemn sight to see them come cruising like ships towards the outermost reef, ready to venture out on the dreary ocean. The bells clang out more distinctly, but the camels grow larger very slowly. A man mounted on an ass leads the long procession. Do they really mean to venture out? Shall we tell them that it is impossible, or shall we hope that they must get across at any cost? In that case we shall be glad to let them plough up a path for us, for in the track tramped down by a caravan the salt clay dries very quickly, and at any rate the ground becomes less smooth.

"Why have you set out though it rained in the night?" I asked. "It is surely not the first time you have crossed the Kevir?"

"Well," said the leader, "when we saw you go off towards the desert yesterday afternoon, we decided to follow your track, watered and loaded our camels, and set out at dusk; but when we came to Kotel we were caught in the rain, so we pitched our camp. We thought that you had gone on northwards, and that we could avail ourselves of the path your camels trod down in the desert."

"We have examined the desert and found that it is quite impossible to cross it now."

"Yes, I can understand that," the man replied. "It would have been better to remain in Jandak rather than lie waiting here, where there is neither water nor fodder."

Meanwhile the camels came marching up, *katar* after *katar*, each division of six or seven camels led by a man. Their loads were pitched down anyhow, and the camels, fifty-five in number, were arranged in groups of ten or twelve, and in the midst of each group was spread a sheet which was filled with straw. While the camels fed with an excellent appetite, the men took their evening meal of bread, rice, and tea, with raisins, and smoked their pipes and talked.

At ten o'clock at night, just as we had finished our supper, the bells began to ring again. Instead of staying here, consuming their stores and injuring their camels by too long abstinence from water, the men were marching back again to Jandak. But the caravan leader, Agha Muhamed, and one of his servants remained at Haji Ramazan's dried-up well to keep guard over the baggage. Ali Murat accompanied the returning party with his four camels, which also were in need of water and straw, as our commissariat was completely deranged by the unforeseen waste of time. It was fortunate that I had ordered Abbas Kuli Bek to stay three days at Jandak. With the help of a small Persian grammar I always had at hand, I composed a faulty letter to him and Mirza; they were to send us bread, eggs, chickens, roghan, matches, candles, and charcoal for six more days, and for the rest they were not to alter their arrangements, but quietly await our arrival at Khur.

With the experience I had now acquired of desert life and its risks, I perceived that it might very well happen that after the first crossing we might be stopped in the same way at Turut. It might come on to rain at any time, and the eastern route is considered much more difficult than the western, at the head of which we were waiting. It is wetter, dries more slowly, and is bad all through, while the western has at any rate firm ground in parts. But at the worst we could always take the eastern route round to Tebbes, and send a messenger after our men. Now all we had to think of was how to get safely through to the northern edge of the desert, and afterwards matters would right themselves.

96. The Caravan Leader, Agha Muhamed, our Travelling Companion through the Kevir.

Ali Murat had also orders to procure us more water, for the supply we had brought with us was finished. He sat on the first of his camels and joined himself to the other party. They soon disappeared as shadows in the darkness, stealing ghostlike under the moon, and the clang of the bells, ringing at a quicker time than before, died away in the distance. Now the camels were making for home, and leaving the dreadful desert, and rejoiced in the hope of escaping forced marches; and, besides, they had got rid of their loads.

CHAPTER XXX

THROUGH THE DESERT BY NIGHT

HARD frost on the night of January 31, as low as 22.8°. But at one o'clock the temperature was up again to 53·4°.

We knew well that to-day at least we could not make a start, for our camels had gone back to Jandak, and would not return till morning. It was therefore of no consequence whether a caravan passed Ramazan's dry well or not, though, indeed, it would make a change in our monotonous life. We were almost like shipwrecked men lying on a small island and waiting to be rescued after they had lost their ship.

Our little colony consisted of Gulam Hussein and myself, Agha Muhamed and his servant, Nevengk and an ass; so we were six in all. Our neighbours lay outside among their bales, where they made themselves a lair among the loads with mats and empty sacks. We remained in our den, but were enticed out by the fine warm weather and the light pleasant north-west breeze. My felt rug and my mat were spread out in the open; the burkha, slung over the stand, afforded shade, and I lay reading a novel as though I were on a summer holiday. Meanwhile Gulam Hussein cleared out the hole and swept out all the dust and rubbish. It was quiet and silent around us — not a sound, not a bell from the north announced that a caravan had ventured to defy the desert and its ground, still sodden after the last rain.

Then I drew a panorama of our dreary surroundings. To the north the hill above Husseinan appeared faintly

but quite distinctly in an even tint of blue. Agha Muhamed insisted that this hill could not be seen from the middle of the desert, nor Kuh-i-Jandak, however clear and calm the weather might be. He added that the reason was that one "goes so deep down" in the Kevir that everything is hidden.

Agha Muhamed had his home in Ardekan, and was only twenty-two years old. He was the owner of 25 camels in the caravan he led. He found his way into my sketch-book, and looked picturesque in his voluminous turban wound several times round his head, and a coarse cloth round his neck. It was a serious matter for him and the other partners in his caravan that he should be stopped by rain. Their 55 camels were worth 3500 tuman, and the goods were estimated at 100 tuman a camel load, or 5500 tuman. Agha Muhamed's caravan had been nine days on the way from Yezd to Jandak, had stayed there two days, and now unexpectedly lost two more. His destination was Shahrud, and he reckoned it twenty-five days' journey from Yezd. Now, every day cost him, according to his account, 30 tuman in food and fodder for the seven men and camels and the wages paid to the former. Every day, then, increased the expense of the journey and diminished the profits. When the camels are passing through desert country they must be fed with straw and cottonseed; when they are not working they forage for themselves on the steppe.

The most active caravan traffic began, he considered, about March 5, and continued for two months, during which time 200 caravans marched through the desert in both directions. In summer few passed, for by the beginning of June it becomes fearfully hot in the desert, where there is no water, and men become so thirsty that they have to drink once every hour of the store they have carried with them. Camels can go without water for three days in summer and six in winter, and longer at a pinch. Agha Muhamed said, like my other informants, that only the two routes we intended to try were used for caravan traffic, and he knew no direct way from Turut to Tebbes. Even the usual way from Turut to Khur is avoided as

much as possible, because it is considered lumpy and tiring even in good weather. If the weather is uncertain, a caravan that is going from Khur to Turut prefers to take the roundabout way through Jandak to Husseinan or Peyestan. From Hauz-i-Haji-Ramazan there is a direct road to Khur, passing the following wells: Shur-cha, Cha-no, Cha-deras, Sovor, Cha-dager, Ser-i-gudar-i-kherite, Hauz-i-seh-farsakh, Cha-i-gokun, Abbasabad, Shur-ab, Hizer, and Khur.

Thus we spent the long hours as best we could. Our neighbours baked wheaten bread on a girdle over a hole in the ground in which a fire was made, and when the batch was ready they offered us two warm rolls. In return they were invited to tea in our den, and related their experiences in the Kevir, while the pipe made its rounds. Outside the shades of evening gathered, and we went early to rest.

The temperature sank to 18.9°, and I was awakened next morning by the ring of bells—it was the Yezd caravan returning from Jandak with the intention of remaining here through the day, loading up in the small hours, and beginning the desert stage before the sun was up. They would then be able to traverse the most dangerous parts of the southern Kevir in daylight, and it would be a decided advantage to see where they trod, since the upper layer was in all probability as slippery as ice. Ali Murat also was with them ; his four camels had eaten and drunk, and now carried the reinforcement of provisions we wanted, as well as two sacks of water. All was well in the main camp, and Mirza wrote in his letter of reply that they intended to stay a day longer in Jandak, since we had been so long delayed.

The large Yezd caravan presented a fine and richly coloured spectacle, encamping on the level ground between the vaults of the cisterns. The bales were stacked up in pairs, so that they could be conveniently hoisted on to the camels, when these were made to kneel between their loads. Now the animals lay in groups of six round their heaps of chopped straw, and it was a pleasure to see their excellent appetite. A strange and impressive sight

97. Agha Muhamed and his Servant Baking Bread.

98. A Leading Camel of the Yezd Caravan.

was this party waiting for the favourable moment; it lay there resting and gathering up strength on the very outskirts of the desert, which showed its horizontal line, forming the farthest visible limit of the earth's crust to the north.

The day looked uncertain. In the morning the weather was tolerable; the wind blew from the north-west, and the sky was half covered with clouds. But at one o'clock the sky darkened and was veiled in threatening clouds, the wind abated and it became quite calm, the barometer fell—everything indicated a change. We had for a time our hearts in our mouths, and wondered what was coming. If we were only on the way—I was longing for a change, for something fresh after these three days of useless waiting. My patience had already been put to a hard trial. If the rain, which no doubt was coming, would only wait till we were out in the desert, that I might see and examine its effect! Good weather would be best of all, and it would be hard if a fresh fall of rain undid all that the three fine days had accomplished in drying the ground. We should have waited to no purpose, for as the desert was already wet it would be quite impracticable after more rain.

It is, however, very pleasant, voluntarily or involuntarily, to study at close quarters life in a large caravan. Usually I only see them sailing past on their long cruises—now I am myself a member of the party, a travelling companion of the wanderers, and for three days I shall see their ways and doings from hour to hour. Most of their time is occupied in attending to the camels. The voracious animals are stuffed with straw and cottonseed; they eat all day, as if they knew that they would shortly get short commons, and that they must set out with full stomachs. Their pack-saddles are taken off, and all bits that may lie under the saddle and fridge the skin are removed; their backs are curry-combed and brushed so that the dust flies out.

Then the men resign their earthly shells to sleep, lying at full length between the camels, with their noses in the air. In the afternoon they bake bread, mend their clouts, drink tea, talk and smoke round their fire, strip themselves and kill innumerable insects with their thumb-nails—their

proximity is disquieting, especially as the men frequently pay a visit to our den, where they sit scratching themselves and may easily leave one or two of their parasites behind.

The day advances, the clouds are still there, but not a drop of rain falls to the ground; in the night our fate will be decided: if it rains our companions will return to Yezd, if it keeps fine they will go northwards.

At eight o'clock the sky becomes brighter, and also our hopes—mine at any rate. I suspect that Ali Murat wishes for rain and repents of his promise. He talks of "camel weather" when it is gloomy, and looks very suspicious, and the animals shrink from the desert. He maintains that the camels understand that rain is to their advantage, and that fine weather tells against them. The night before last he had sat sleeping on his camel all the way, and had not waked up till he was at Jandak. But to-day he has had to go on foot and drag the rope to make the animals follow him.

The evening drew on, the weather cleared up, and Ali Murat begged me to go to bed, for we were to start two hours before sunrise, and before then the camels must be laden. We packed up our baggage; I had my mapping board, sketch- and note-books at hand in a satchel, and everything else was put away. We were to ride all day till sunset, and then rest a while to feed the camels with straw, and then ride all night to get safely out of the Kevir. There was no prospect of sleep. It was not so hard for the men, who could sit and sleep on the camels, but I should have to make observations and notes all the time, by sunlight or moonlight. Best to make the most of the present before the blow fell, and fall it must—for that I was prepared. There was a lively commotion in the Yezd caravan in the darkness; they were making ready to start; by seven o'clock there was silence in their camp, and then nothing was heard but the gurgle of a camel occasionally or the ring of a bell when the wearer moved. I did not take the trouble of undressing for the short night, but slept well wrapped in a cloak.

I was awakened on the stroke of four, and we were

ready to march off just before five, but we had to wait a good quarter of an hour for the men from Yezd. Thick darkness lay over the earth, the moon had set, but bright stars twinkled above the desert and the night was calm, quiet, and solemn. Our neighbours loaded their camels silently as ghosts by the brilliance of a flaming fire, which lighted up the camels and made them stand out in high relief, orange-coloured against the darkness. Only the sound of the bells and the crackling of the firebrands broke the silence, foretelling the approach of another day. There is nothing to speak about, for every man knows his work, and which camels and loads he is responsible for, so he keeps silence, and, like his comrades, experiences a serious feeling of unrest. Occasionally he throws an angry word of abuse at an obstreperous camel.

The weather was fine and pleasant, though cool in the dark hours of morning, but there was no wind, and not a cloud hid the stars. When all was ready the Yezd men took all the branches and twigs left over and piled them up on the fire, and the flames rose in a vertical sparking pillar into the air, and lighted up the dreary neighbourhood of Ramazan's waterless well, where we had passed four long nights and four impatient days. I mounted at once between the humps—best to ride as long as the ground is stable—and so we passed out into the darkness, rendered doubly black by the strong light of the fire; and the bells rang out, some loudly, some faintly, according to their distance. In a minute we are out of the range of the firelight, and its brightness vanishes behind the hills like a dying beacon on a shore.

The large Yezd caravan in front of me looks only like a black mass, as I sit up on the first of our four camels and read my compass and watch and make my notes with the help of a cigarette. No path is visible, but if the men do not see it the camels will find the way. Most, however, depends on the leader of each *katar*; he tows the others and they follow him closely. The darkness is dense, and, for my part, I do not see at all where we are going, and have no notion of the formation of the ground, but I feel that I can thoroughly rely on my camel mare's

feet, and quietly trust myself to her guidance. We march straight towards the pole-star.

At six o'clock it begins to dawn faintly over the low hillocks to the east. Every minute their outlines become sharper. The mass of the caravan in front of me breaks up by degrees into detail, and the solid clump resolves itself into a number of definite shapes. Then colour comes into the scene, appearing in faint tints. The stars pale and rapidly disappear. The path comes into sight as two parallel tracks in absolutely sterile desert; dark patches here and there indicate moisture, which is sinking into the ground. The tip of the sun's upper limb glitters with electric brilliancy over the eastern hills; light and life is poured over the dreary scene; the shadows of the camels, at first a mere suggestion, grow darker, and the bells seem to ring more clearly when the metal is gilded by the sun and the clappers can be seen swinging and beating.

After an hour and twenty-five minutes Ali Murat, who is leading my camel, turns round and says that we have travelled a farsakh—we have 29 left! At this point we leave a very insignificant rise in the ground to our right, called Bend-i-bala-Hassan, or "Hassan's upper embankment." Caravans coming from the north are delighted when they reach this place, and even when they see it from a distance far out on the desert. Then all dangers are behind them.

Reddish-yellow and gorgeous the sun rises over the hills to the east, and all the colours become intense; against the grey and white bales on the brown velvety yellow camels the red, which contains henna, is a striking contrast. The caravan, against a background of grey with alternating light and dark shades, stands out boldly, the only life and movement within sight.

To the north light clouds rise like gauze or mist over the hills beyond Husseinan, which are now hardly perceptible, and would not be noticed if we did not know that they are there. The ground is not yet quite level. We have passed two erosion furrows, the very farthest tentacles of the drainage from the south. No rain-water comes down farther unless after tremendous floods. We

see the northern horizon change its position time after time with regard to the caravan, which is now below, now above, and now on a level with its plane. The ground now lies in extremely flat undulations, which would not be perceptible to the eye if we had not the caravan as an indicator.

Now the sun soars clear above the horizon, and though it has but just risen we feel the caress of a warmer, milder air. And yet the thermometer marks 27.3° at seven o'clock, but there is no wind and the sky is nearly quite clear, presaging a fine day and a fortunate journey. Sharply marked, immensely long shadows lie on the port side of the ships of the desert; but their extreme points gradually reach us as the minutes fly by.

We are not yet at the margin of the Kevir. A pond, left in a furrow, is sweet. We are in the transitional zone between the mainland and the Kevir, the farthest outskirts of the slopes of detritus and products of weathering from the foot of the southern hills. Here we cross a series of hollows, very shallow but quite distinct and at right angles to our course; they often lie very close together with low ridges between them. I can conceive no reason for their formation, but I suppose that they are a kind of wrinkling or folding caused by thrusts and tangential pressure in the suture where the firm land comes in contact with and passes into kevir.

Now the sun has been up an hour and the temperature begins to be comfortable. The shadows shorten. In the course of the day they will describe a semicircle round us. It is pleasant to have the sun at our backs; on the way from Turut to Khur the star of day will blind our eyes and burn our faces. The hills farthest to the east fade away in very light and evanescent tones. We are approaching the Kevir! The ground, lately dark brown and grey, becomes now a light universal grey. Its surface is rough and lumpy. How vividly it reminds me of Tsaidam and its sterile salt desert, which also can be crossed only in a few directions! Doubtless the Persian Kevir is a filled-up basin of the same kind.

The road is plain, for it has been trodden by many

caravans and not obliterated by the recent rain; now it consists of a score of tracks side by side. Agha Muhamed is the most important man in our party. He sits on his ass and takes the command, but before very long the ground will be of such a nature that he must spare his beast. At present the ground is dry and trustworthy. We have not yet traversed the 2 farsakh which separate us from the shore.

Now the ground is quite level, like a frozen lake except for small inequalities. The slight elevation of the caravan above the plane of the horizon remains constant. Certain bits of the road are as even as an asphalted street, and in my extemporized saddle I sit as in an armchair, but my camel has also a very easy gait—a mare has usually an easier action than a stallion. Sometimes a white film of salt lies on the surface, a hint of the salt desert. And over this lifeless ground, lifeless as the moon, the road runs straight as a dart, and I see the caravan in front of me in the greatest possible foreshortening. Sometimes, at a slight bend, the whole procession unrolls itself to right or left, and I see all the camels like the carriages of a train passing round a curve.

We have a Seid in our party. When I asked him yesterday to let me draw him, he refused, saying that it was incompatible with his religious dignity. When the sun rose to-day he stopped to say his prayers. He is the only one of the Yezd men who rides a camel; all the others go on foot, each leading his *katar*, and two look after the equilibrium of the loads. Every small stoppage at the head of the caravan is felt by us who bring up the rear. Agha Muhamed has only to pull up a moment to light his pipe, and all the camels, one after another to the last, must halt a moment; it is like a vibration propagated through a long line.

The low hills of Jandak grow fainter and fainter, but the northern hills appear clearly though dimly. We are at the critical point Chil-i-do-farsakh, "the 2-farsakh mark." Here the Kevir begins, and the passage from the dry land, which yields a sufficient foothold, to the smooth viscous treacherous clay is very sudden and sharp. While the

tail of the caravan is still on firm ground it can be seen that the head is out on the Kevir, for the pace becomes at once slower. My camel had not floundered on many steps before she came down; she was the first to fall, but she managed so well that she came down on all four knees and I kept my seat in the saddle. "Now it begins," said Ali Murat. The height at Hauz-i-Haji-Ramazan was 2556 feet, and now we had come down to 2487 feet.

The ground consists of yellow loam, the finest-powdered material that can be imagined. It is knobbly, and strikingly reminds one of a rusk with numerous holes, but with the difference that it is all as slippery as soap on polished wood. The ridges and holes are so far an advantage that the latter afford a hold for the camel's foot when it slips over a knob, and so may save a fall, which would be certain if the ground were quite flat.

The bells ring unevenly and in jerks, and their sound shows that their bearers are stumbling; now here, now there, an unusually loud clap is heard. We make terribly slow progress. The leader goes on foot, feeling his way. I follow his example, for on the camel I sit expecting to be pitched off. This is no ordinary road, where I can look round and make my notes. Here I must carefully see where and how to plant each foot. I make for the holes and avoid the knobs. Nothing is to be seen of a path; it has been wiped out by the rain in the soft, yet viscous material.

The surface is in parts almost black, and between greyish yellow; in the former there is still a deal of moisture, while on the latter there is a dry layer not thicker than apple peel, but even here it is as easy to stumble, for under the dry surface layer the clay is just as smooth and soft. Of course the way between Jandak and Husseinan, the main artery through the Kevir, has chosen the part where the desert is narrowest; and it may be taken for granted that the Kevir widens out east and west of this contracted part. Most certainly also the dark sodden expanses widen out in the same way. Where our route crosses it the Kevir dries more quickly than elsewhere. In the eastern and western depressions the

moisture lies longer, and even if the surface were not more dangerous there than here, the risk would, however, increase with the breadth, and the danger of being overtaken by rain be greater.

In the far north a small dark line floats on the horizon, and above this line hills rise, scarcely perceptible, and a trifle above the level. The statement that they are altogether lost sight of is therefore not true; we see them, though faintly. A place where signs of several caravan camps are seen—fragments of straw and camel dung—is called Barindas-i-ser-i-nemek, because it lies at "the beginning of the salt." And before we are aware we are out on the salt flat, which is covered with a very thin layer of dirt and mud. But the ground is treacherous, for if the camels put their hooves through the salt crust, barely 4 inches thick, they are liable to break their legs, and if a whole sheet breaks in, they sink in the soaked clay, which, according to my men, forms a bed of mud 5 feet deep below the salt crust. This is then like an ice-sheet stretched over it. Holes and gutters lie close beside our track, and it often seems wonderful that the camels do not step into them.

It was easy to perceive that Agha Muhamed was following a definite route, and not groping his way at random. In Ser-i-nemek caravans have a landmark on the way southwards. On the salt flat longish collections of water stand in the troughs worn out by innumerable camels. Generally the hard salt belt is covered in winter by a foot of water, but this year the precipitation had been under the average. Even if the salt is under water, the caravans pass over without hindrance, the camels do not mind it in the least, and the distance amounts to only 2 farsakh. In summer the salt crust is quite dry and hard, though water lies in the mire below. Now the surface is as even as ice, but here and there stand small shallow yellow pools with white rings. In holes going right through the salt crust clear water comes up. There is not the least trace of a path; it is swept away by the precipitation every winter. But it is not difficult to find the way. Skeletons of camels, not yet fallen to pieces, act as sign-posts.

99. Three Boys of Alem.

100. One of the men from Yezd: Ekber, 40 years old.

The day passes and we get the better of the desert bit by bit. We can ride over the hard crust, for it is not at all slippery. The sun has passed its meridian, and the shadows extend on the starboard side. At one o'clock the temperature is 52.9°; a slight draught of air from the north-west is perceptible, and large parts of the sky are overcast. We shall see if we escape rain. We have quite the feeling of being out at sea and longing for a coast.

There is no longer water on the surface, but the underground water appears in every hole. From one of these we took a specimen of salt, loose and porous, as well as a specimen of the underlying mud. To the north-west a reddish-yellow hill comes in sight, which is called Kuh-i-cha-i-shirin, or the "hill of the sweet well," over which runs the road from Mahallaman to Semnan.

At length we are across this belt of hard salt, and again there is wet kevir before us. At this point, between the two, we find that we are on the right course, for at this new *ser-i-nemek* there are abundant signs that caravans have rested. Here also the Yezd caravan halts, the men take the loads off the camels and take straw out of the sacks. We have no objection to follow their example; we are hungry after a cup of tea and a piece of bread in the morning and nine hours of continuous march. I ask the men how long they intend to rest, and they answer, as long as the camels need to eat their fill. They set out again immediately only when the weather is threatening, but now there is at present no danger, for the clouds are quite light. The height is 2369 feet.

So the tripod is set up, and the burkha shades me and shelters me from the draught. Gulam Hussein makes haste to put on the water for tea, and before it boils he has looked out a cold chicken and some hard-boiled eggs. I would sleep a while, but I have no time, for my notes must be entered in my diary.

Here we lie at anchor with our ships in the midst of the desert, and are surrounded by the most perfect peace and quietness. Nothing is heard but the jaws of the camels as they grind the straw between their teeth. The

lifeless solemnity of the desert surrounds us on all sides, and to the south the white sheet of salt has a delusive resemblance to a frozen lake, where the camel skeletons are conspicuous as black specks owing to the dust and dirt which gathers on and about them. Though the distance is considerable, they appear disproportionately large. A small way-mark, a pyramid of salt blocks, also grows to extraordinary dimensions. The northern hills are wiped out, probably owing chiefly to light effects caused by the change in the altitude of the sun and also by the moist vapour rising from the sodden ground.

As soon as the men have emptied the straw sacks in front of the camels and have satisfied their own hunger, they sleep on their cloaks or on the bales to keep out of the wet. The hours pass all too quickly, and it begins to grow dusk before I have finished my work, and when at last I am ready to lie down the fellows wake up and begin to make ready to start. I therefore get no rest, for our camels have to be loaded, and in the declining day Agha Muhamed calls out his *bismillah* and starts off to the peal of the bells straight towards the pole-star.

The men had prepared me for 2 farsakh of very difficult ground, and therefore I travelled on foot. The moon was high, and when night came on I was able to read the compass by its light and write down my notes. Walking was difficult and slippery, and the shadows from the moon in the holes confused one. They seem like black yawning pits. You do not know how deep they are, and before you know anything about it you are down. Lumps of wet plastic clay cling to the boot-soles, which makes walking still more difficult and heavy. Before us the long caravan appears as a row of dark spots. Sometimes a scream is heard when a camel has fallen and has to be helped on to its legs again. Then I find time to note down my remarks and perhaps to reach the head of the caravan and thus gain ground, but I am soon the last in the train, and follow the camels' track, where the clay tramped down by their feet is less slippery.

After 1½ farsakh we pass a point called Barindas-i-buluch, where dark patches alternate with grey. At nine

o'clock I halt a while to take the usual meteorological observations; it is 37.8°, and the sky is almost clear. We have come down to 2247 feet above sea-level, and are at the lowest part of the Kevir's exceeding flat depression. There are names for various points on the desert route, and if they are useful for nothing else they at any rate serve to divide the critical stretch into sections. One knows when one has covered a third of the way, the half, or two-thirds. When Dolashi is passed one looks forward to Kona-omar, then to Kona-Osman and Dube-i-lerdeki, easily recognizable by the changed colour of the ground which passes from yellow to black and white.

But now I had enough of walking for a time and sat up on my camel, trying to shelter myself from the freezing north-easterly wind with the felt rug which served as a saddle-cloth. For five whole hours I kept to my airy position and could easily make my observations in the brilliant moonshine. I was certainly sleepy, but the wind kept me awake, and one cigarette after another vanished in smoke. At first the men caused me some diversion. Every katar of seven camels was led by a man. The last camel of each katar carried a bell. As long as this keeps ringing the leader knows that all his seven camels are following, but if it ceases to ring some rope has come loose, and the following troop slackens its pace and comes to a standstill.

The night advances, and the men are tired and overpowered by sleepiness. Without stopping the train one of them climbs up on the first camel in his katar. He makes the animal bend down his neck so that he can put his foot on it, and when the camel raises his head again he helps the man up on to his back, where he lays himself on his stomach on the top of the loads and falls asleep at once. The others follow his example, one after another, and soon the whole lot are up on the camels. Then it occurs to Ali Murat and Gulam Hussein that it is useless for them to walk, and they clamber up each on one of our camels, and they, too, take a nap, as is quite evident from the strange swinging of their bodies.

Now all are sleeping, except Agha Muhamed, who

rides in front on his ass and draws the whole line after him, and myself riding on the last camel. Not a sound is heard but the ding-dong of the bells. But suddenly there is complete silence, and my camel stops. Only in the distance, far away in the front, is heard a faint diminishing ring. The first camel in some katar or other has taken into his head to stop. His rider does not notice it, for he is asleep; all the following camels also stop; and there we might stand for any length of time in the middle of the night and the desert if I were not awake and let my voice be heard along the column. Then the culprit, the first in our derelict row, at last awakes and starts up, the bell in his katar rings again, and then the other bells ring one after the other, and the sound comes up to us who are waiting in the rear—it sounds like a caravan from the opposite direction passing us, and yet it is from our own bells. At last the turn comes of my camel, the last, and on we stalk again towards the polar star, the bells ring regularly and together, and the peal startles the silence of the night.

How slowly the hours of night creep on! How cold and raw is this penetrating wind! Even our friend, the moon, is tired and sinks towards the horizon, and the night shadows of the camels lengthen out over the ground. During a longer halt, when a fellow sleeps so soundly that he cannot be awakened by a shout, I dismount to walk a while and restore my circulation. And at the next stoppage I take my place again on the camel's back and bravely fight against drowsiness. Sometimes I am on the point of dozing off, but wake up when I am near a neck-breaking fall.

The shadows from the moon grow still longer and the night becomes darker. Heavens, how tired I am and how my back aches! A fire which appears to the left of the head of the caravan attracts my attention, and I am eager to reach it. Two of the Yezd men have lighted it in passing to warm their hands. Shouts and talking are heard in the caravan, and one man after another jumps down from his camel and goes up to the fire. When we reach the friendly flames I tell Gulam Hussein

to feed the fire with some of our saxaul stems, and then we sit down and talk a while. The camels, however, continue their march from habit, and because the leader does not halt. We do not sit long, one man after another hurries after the caravan, and when I am warmed through I follow after the distant clang of bells. Last of all, we also have overtaken the others, and now Gulam Hussein takes out my sheepskin coat and *valenki*, or Russian felt boots, and I can successfully withstand the cold when I mount up again between the humps.

The ground is excellent, and the camels do not stumble at all. We pass Hauz-i-agha, a place where a cistern was formerly situated, showing that here, in the middle of the desert, there is a prospect of collecting sweet water. Last year (1905) the people of Husseinan made an attempt to rebuild this reservoir, but were not successful. To the right of our route appears a black belt, a locality called Kashia. The Kevir is now hard and even as an asphalted street, the pace becomes quicker, the bells ring more frequently, and the men roll in longer, quicker, and more uncomfortable swings. The moon sinks, and the pale blue light fades over its grave. We are in the midst of pitch-dark night. The pole-star has disappeared, taking the whole host of heaven with it. No starlight can penetrate the clouds that gather over our heads. Bad weather is coming on, and a strong north-easterly wind arises, the hostile wind, *bad-i-Khorasan*, the wind that usually brings rain. I cannot see my hand before me, nor the head of my own camel. I have no notion where we are going, and cannot discern the nature of the ground. It is pitch dark all around, and I sway as usual backwards and forwards, listening to the ring of the bells and the flapping and beating of the rugs and cloths on the camels in the wind. No talking is heard, the men being too far apart, but I have a feeling that they are awake and on foot. We must try to get over without rain, so the march is forced and one hour passes slowly after another.

Will this everlasting night never come to an end? I can do very well without sleep for once, but this impenetrable darkness puts my patience to a hard trial.

I have to smoke all the time to be able to read the compass and watch, but with my notes I have not much difficulty, owing to a method which has no other drawback except that it requires much paper. Now it is four o'clock; yesterday it was still quite dark at half-past five! Patience! I hum and whistle to pass the time, and next time I look at the watch it is only five minutes past four!

CHAPTER XXXI

ANOTHER NIGHT IN THE KEVIR

At last, however, this long night draws near to an end, there is a faint light in the east, and the pale dawn spreads over the vault of heaven, lately so dark, heralding the ruddy morn. The camels emerge from the darkness, first dimly and then more and more distinctly; they march as they have all night long, and the bells play the same monotonous tune, but now outlines and colours return to view, and I see the drowsy men and the imperturbably calm eyes of the camels and their legs plastered up to the knees with a crust of dried and hardened mud.

From Dag-i-dumbone is seen to the west-north-west a small yellowish-red hill, Cha-leges, and the hill at Cha-shirin, which was seen from the cistern of Ramazan, is now conspicuous at a distance of 18 farsakh. Kuh-i-Jandak is not visible, for it is enveloped in dense clouds. At half-past six we pass a tract of dark streaks and shallow furrows at right angles to our route. They are like old shore lines, and are possibly produced by different rates of drying or by movements in the soft mass of the Kevir.

"*Incha nesfe-i-rah est*" ("Here we are half-way"), says Ali Murat, and that is a consolation, for I am half-dead with sleepiness. We have kept on for 12½ hours without any break but the ten minutes at the fire. The men would encamp now were they not frightened of bad weather. If it rained now the next 10 farsakh would be turned into an impassable bed of mud. Instead, they hurry the pace to get over the ground. Every step we take northwards gives us a better chance of escaping if the rain

comes. The sun rises but is invisible to our eyes, for it is hidden by threatening clouds which become denser, bluish black, and heavy. It will be wonderful if we escape them without danger. To the south, over Khur and Jandak, nay, over all the southern margin of the Kevir, and perhaps over part of the desert itself, the rain is pouring down. We can see the dark grey fringes streaming down over the earth. It blows half a gale; it is gloomy, raw, and uncomfortable in every way; a cup of warm tea would be good to set the blood flowing again.

We have been travelling more than fourteen hours, when at length I am delighted to find that the Yezd caravan, which is 100 yards in front, has halted, and is preparing for a rest. The stand and burkha are hardly set up before a pouring rain falls down on it, and it is pleasant to sit under cover, but sad to hear this sound, elsewhere so welcome, but feared and detested in the Kevir. The Yezd men seem uncertain, break off their preparations, and evidently think of setting off again. If the rain continues we may be exposed to great danger. But fortunately the shower passes over quickly and the clouds become rather thinner; the north-easterly wind blows as hard as ever. The Yezd men make up their minds to stop, and while Gulam Hussein makes tea I write in my diary, and after breakfast I resign myself into the arms of Morpheus and sleep as I have never done before. I sleep so soundly and heavily that they may very easily leave without waking me; I should lie there sleeping on for ever.

But at three o'clock in the afternoon Gulam Hussein stands over me, calling out, "*Sa'ab, bar mikunim*" ("Sir, we are starting"), and there is no respite, for the bells of the Yezd caravan are already ringing, and when I come out I see it making at a quick pace northwards through the endless desert. I have slept three hours. The sky is covered with dense clouds, and it still blows hard; but the temperature is extraordinarily high, quite 57°—a bad sign at this season. Here we are at a height of 2326 feet.

At our camp, where we stayed so short a time, the way divides, the western branch running to Husseinan

and Mahallaman, a distance of 7 farsakh, 5 of which are through the Kevir, and 2 among hillocks and knolls, probably forming part of the slopes of detritus falling to the plain of the Kevir. The eastern branch leads to Peyestan, a distance of 9 farsakh, over level ground, 8 being within the Kevir. From Peyestan it is 2 farsakh nearer to Turut, and as we had nothing to do in Husseinan, and also on the eastern route we should have the advantage of travelling in the wake of the Yezd caravan, we decided to go on with our fellow-travellers.

Round Camp 22 the surface of the ground was very slightly bestrewn with small round white stones, no larger than grains of sago, probably washed down thither at some time by an unusually large flood. In a short time we are out on the salt flat, but it is very narrow, and is crossed in a few minutes. To the west this belt seems to thin out and come to an end; the road to Husseinan does not cross any salt here. This flat is of somewhat different consistency from the former. The field has burst up into polygonal flakes, usually octagonal and 3 feet in diameter, which are separated from one another by ridges and banks of salt three-quarters of an inch high. These are white, while the rest of the ground is yellow dust and mud. The salt, also, is very dirty under the surface. Here and there, where a block has been tilted up by some side pressure, it can be seen that the salt is not much more than 4 inches thick. But under this layer there are one or two such layers, so that the whole depth amounts to about 20 inches. The salt lies on thoroughly sodden mud, but is dry on the surface. From Camp 22 the ground slopes perhaps 3 to 6 feet to the edge of the salt sea, which shows that crystallization takes place in the flat depressions of the Kevir; the drainage water collects here in the rainy season and the water evaporates, and the salt layer becomes gradually thicker and increases in course of time.

Then succeeds again ordinary kevir, sometimes dark brown, then light yellow, and then again grey. There is a passage between two conical hills to the north, called Tenge-i-rishm, through which a track leads to Guleki, Mehabad, Hassanabad, Turut, Damghan, and Shahrud.

Still farther appears a ridge called Kuh-i-kozar. On the left we pass a distinct path leading to Rishm, through Husseinan and Mahallaman; it points straight to the north, while our path trends somewhat to the east. In front to the left is now seen the margin of the detritus slope, reddish yellow in colour, and I seem to perceive that the ground rises in this direction, though extremely slowly. Undoubtedly, then, the peripheral parts of the Kevir are rather higher than the central. It is evident that the fine products of weathering washed down by water from the surrounding hills must be deposited round the edge. But when the mass which fills the huge depression is softened by precipitation in winter and summer, this deposit creeps or is thrust forwards to the deeper parts of the hollow, the central region. It moves like any other viscous substance; it advances like a moving bog or a lava stream. When the burning summer sun dries and hardens the upper layer, it stops like cooled lava. Probably this assumption is true only of the upper crust; beneath it the soaked masses are still so far in motion that, in obedience to the laws of gravity, they seek to arrange themselves horizontally. Possibly the strips, ridges, and concentric hollows we pass on both the southern and northern outskirts of the Kevir are nothing but creeping undulations caused by the thrusts which are necessarily produced by the constant pressure of alluvium washed down from the hills.

The wind from Khorasan, from the "Land of the Sun," is searchingly keen and cold as evening draws on. The camels stride on northwards at a round pace, covering mile after mile. I am glad when some one announces that the first of the 9 farsakh is past. I have travelled it on foot and found it easy, but the following are more troublesome, and another sleepless night is coming, which will be worse than the former, for after its hardships we are still heavy and stupid.

We cross two very shallow furrows from the north-west filled with water and covered with a film of slime; in these beds fresh water lies after rain. In the tract we are now traversing the Kevir is very different from the

southern parts; the hard, slag-like crust which cracks to pieces under the feet and sinks into the soft mud, is absent here, and instead the ground consists of fine yellow close clay, even on the surface, and evidently less impregnated with salt than farther south. Only occasionally a very thin efflorescence of white salt is seen on its surface. The report that sweet water reaches so far into the interior of the Kevir seems also to indicate that the beds it passes through are so closely cemented with clay that no crystallization of salt can take place.

Still the northern hills appear only as a faint outline, and below them are seen the reddish-yellow hillocks—a region which the Persians call Kotel or pass, because the road passes up and down through much-diversified country. Below, or more correctly along its very front, runs the sharply marked boundary of the Kevir, and a transitional region containing sand and pebbles seems to be absent, as also farther west, according to the statements of the men. This northern limit of the Kevir runs, it seems, fairly straight westwards up to the distant tract where it runs out in a curve to the south-west and south, to wind round the peninsula which bears and is caused by Kuh-i-nakshir. And there we had nearly a month ago seen the boundary of the Kevir. I do all I can to collect data of the course of this boundary in the districts where I have no opportunity of determining its position myself. I hope by this means, and by making use of the observations of other travellers, to collect enough material to enable me to compile a map of the Kevir, the contours of this former half-fossilized lake.

The whole sky is overcast, except far away in the west, where the sun is sinking under a dark roof of clouds amid a bright orange light which steeps the dismal desert in a bath of flaming gold. What singular effects of light! I am amazed at the scene, so unlike anything else, so fantastic, so beyond belief. Painted on a huge canvas, one would not believe it true to nature. The horizon grows dark all around us, to the north-east and east bluish-grey clouds pile themselves up, and the dome of the zenith is heavy and dull as in a November sky of

northern latitudes. Only in the west, in a small space left free by the clouds, the fire of the sun burns as in a gigantic smelting furnace, casting faint reddish-yellow reflexions over the desert, and colouring the camels brick red. How wonderfully sharp they stand out against the dark sky in the north! Fiery-red camels! They might be bewitched by the spirits of the Kevir. But their step is measured, their gait as stately as ever, and they sometimes turn their heads horizontally to look westwards and take farewell of the departing day, and then a reflexion of the sun makes their eyes glow like burning coals. And over this scene sweeps with undiminished velocity the *bad-i-Khorasan*, or wind from the land of the sun. We have come far, and have many a weary mile behind us, but shall we get out of the grip of the desert before the rain comes and, together with the impenetrable darkness, thwarts our plans and prolongs our long-suffering?

I walk and keep in step with the Seid and another man from Yezd. We talk to beguile the time. They tell me some of their own affairs. Every member of this caravan is a *shuturdar* or camel-owner. Agha Muhamed owns most, the others having only two each. They receive $9\frac{1}{2}$ tuman as hire for each camel between Yezd and Shahrud, and also 2 tuman each as wages for their services. But the road is trying to the animals, which must also be fed, and the profits are not large. And, besides, there is the risk of rain. In the worst case they may lose their camels or be hindered by yielding ground. In Shahrud they remain till they are hired again, and have other goods to carry back to Yezd. They seldom manage to travel backwards and forwards between the two towns more than three times in the year. The interest, then, on the capital value of the camels is not large, and for those who own only two camels life is not a bed of roses.

In return I told them that the night before, as I sat awake between the humps of my bearer, I saw a camel and two men pass by me like shadows, going south. All the rest were asleep, the caravan moved on by its own momentum, and the strangers went by without speaking

101. Ali Murat of Jandak, 35 years old.

102. Muhamed, 22 years old, in Turut.

to any of us. They would not believe it, but thought I had made a mistake. But I told them that I should never have noticed the travellers myself if Nevengk had not begun to bark furiously, following them a little way southwards. They could not believe in apparitions and shadows and returned spirits of engulfed victims. "Yes, certainly," they replied, "here is the Rig-i-jin, here evil spirits play their pranks." And they affirmed that there was something strange in this desert; men are bewitched in it; they walk and walk, and never get out. If they did not get the help of night, *kevir taman ne misheved* ("the desert would never come to an end"). It is in the long and dreary hours of night that men get over the ground, and in the daytime they, moreover, lose time through the necessary rests.

This night the darkness seems to enfold us more closely than usual, and the veil of clouds drops its dark fingers over the desert. Even at a quarter to six o'clock a pale reflexion lingers on the edge of the western horizon shut in above by deep black clouds. The pace is quicker than ever, the ground is splendid, and it is a rest to ride. The caravan moves in four columns side by side—thus are produced the numerous parallel tracks, black on a light yellow ground. Now the desert is as level as a sheet of ice on a lake—at least to the eye.

Patiently and silently the camels continue on their restless course, longing for land like the men, and knowing that their pasturages await them at the foot of the hills in the north. I am in one of the middle columns. The row of camels on my right is very slightly lighter than the dense darkness behind them to the east. The two columns to the left show their profiles against the fading light after sunset, and have a curious appearance like black ghosts. They go on and on like a squirrel in its cage, and the desert never comes to an end, and we are in for another night.

Soon the last gleam of light dies away in the west, the curtain falls, night builds up its thick walls around us, perspective and distance vanish, the far-distant horizon which lately presented the illusion of a sea has been

swallowed up in the darkness, the outlines of the camels are thin and indefinite, and again the animals appear as confused shadows. But still the air around them is filled with the same never-ending clang of bells, which follows them through the desert; a sonorous, vibrating, ever-repeated and prolonged peal, melting together into a full ringing tone in my ears, a jubilant chord rising up to the spheres of the clouds and stars and spreading its undulations over the surface of the desert; a glorious melody of caravans and wanderers; the triumphal march of the camels, celebrating the victory of their patience over the long distances of the desert in rhythmic waves of song; a hymn as sublimely uniform as the ceaseless, unwearied march of the majestic animals through the dreary wastes of ancient Iran.

After three hours' march we have gained 3 farsakh, a hard march; if we keep up the same pace we shall be through at midnight. Wherever an opening appears in the cloudy vault we hope for a clear night, but it is a fraud. Now when the night closes in we are the sport of all kinds of illusion, probably caused by the dim light that breaks through the clouds. We seem to be travelling on a dark shore. To the left stretches out a vast sea with some small islands. We are astonished not to hear the waves breaking, and expect every moment to hear the water splashing round the feet of the camels. Next moment the sea has moved to the right side of the road, and seems to extend indefinitely to the east. A little later, when the gaps in the clouds have changed their places, we seem to be marching along a light furrow between dark banks, while vapour and mist seem to roll over the road. All these optical illusions are due to moonlight; when it strikes the surface of the ground we seem to be cruising over lakes, while the dark shadows are firm land.

Now and again the whole caravan is lighted up, pale blue against the darkness, but the clouds drive on south-westwards, the rift closes up, and all is swallowed up in gloom. Only a small white speck remains on the ground on my right. Is it a piece of salt? No, for it does not

change its position with regard to the caravan. Is the camel standing still? No, for I am swinging and the bells are sounding as usual. I wonder whether I am wrong in the head, shut my eyes and move about as though to shake off a defect in my eyesight and sense of direction. Ah! it is only Nevengk keeping pace with my camel.

The caravan is still the central point in the dark desert, and nothing shows that we are near the edge of the Kevir. The leaders climb up again on their camels and fall asleep. I can hear their slow regular breathing. It is strange that the animals do not grow weary and stiff and sink down on their trembling knees, refusing to go farther. They follow one another patiently. Sometimes a leading-rope breaks, but they still go on. Near the muzzle an iron chain is fastened, and the rope is tied with a piece of string to its last link. If the tension becomes too tight it does not hurt the camel, for the string breaks and the chain hangs down from the muzzle without hindering the march of the camel.

Now all the openings in the clouds have vanished, and there is not a ray of moonlight. It begins to rain, at first slightly and then more heavily. The pace is quickened. Agha Muhamed, who leads the whole train, is still awake. I have my fur at hand at night, and now pull it over me. The raindrops patter on the skin turned outwards, and an unpleasant smell of dampness is exhaled from the caravan. It is well that we have only a few farsakh more. We are now out of danger, however hard it may rain. At Rudkhaneh-i-kal, a trench 6 yards broad, running east-south-east, we have 5 farsakh left. Two more furrows are crossed, unmistakable signs that we are approaching the margin of the Kevir. At nine o'clock the temperature is 49.1°, but it blows very freshly from the north. The rain is thick and continuous. We are expecting every moment that the ground will be wet enough to make the camels slip. The height is 2356 feet.

At a quarter to ten the nature of the ground changes. We cross two more furrows, Kale-i-guch, the largest, pointing south-eastwards, in which direction the Kevir

falls towards its greatest depression, lying farther to the east. At the sides of this trench the ground is somewhat uneven. We must, then, be on the edge of the Kevir.

A little farther on the bell-ringing ceases and the caravan stops. I hear shouts and voices; the sleepers wake up, and go to the front. I am on foot with my two men, for during the last part of the way the camels began to slip and slide in the mire. It seems that we are at Kal-i-sheitan, or the Devil's ditch, a name which implies that the erosion furrow which here crosses the country can at certain times be anything but pleasant. Even now it contains so much nearly stagnant salt water that all the men have to mount, and when all is ready the train moves on slowly towards east-north-east. It is pitch dark, and we have no notion what the ground is like, but warning cries and short stops show now and then that something is wrong.

Suddenly comes the turn of the rearguard. The plash of water is heard more plainly. Ali Murat's camel goes before me gliding down a steep smooth bank of clay, and mine follows after with slipping and slithering legs. They splash and swish through the water. The bottom is fortunately hard, but so slippery that we may at any moment expect a ducking. We get over safely, however, and mount the terrace on the left bank. The rain falls without ceasing, thickly and steadily; the night is spoiled; the ground becomes more and more soaked and slippery. At the left bank of the furrow, which comes from Kotel-i-Husseinan, grow some meagre tamarisks, the farthest outposts of vegetation towards the Kevir.

Here we dismount, for we have a nice bit of road before us. Kal-i-sheitan is sunk 40 or 50 feet into the level Kevir. To get up again on to level ground we have to follow a side furrow with a bottom which is entirely a bed of slippery and treacherous mud. The long train winds up like a snail. The camels carefully hold themselves together that they may not fall. A heavy dull thud is heard or a clap as a camel comes to grief. If he falls on his side with all four legs stretched out, he cannot rise without help. The men shriek and rush up to help him. Then we take a few steps till the next fall brings the

whole train to a standstill in this detestable infernal ditch, where it is pitch dark and the streaming rain makes the slough worse every minute.

The camels are frightened and shy, and hardly dare to take a step. Many of them are already coated with mud, and are wet all over, so that the water drops and pours off them. One or other of the men is always falling into the mud. I wish to keep as much as possible out of this thick mud, so I lean on Gulam Hussein while he urges on the four camels led by Ali Murat. It is like going up a slide smeared with soap; we take a step and then pause before taking the next, and not till we have a firm footing do we advance another step. Plastic clay collects on our shoes to the weight of a couple of pounds, and it is useless to try to get rid of it; it cannot be done without a knife.

A long stoppage! Every one rushes off to the front. The last rise is so steep that the camels cannot climb up it. The men dig ruts in the clay and strew comparatively dry soil over the surface. Sticks and pieces of firewood are also used to roughen the slope, and then the camels are gently and carefully led up, while their loads are supported on both sides. If one could only sit and doze during the hour and a half all this business is going on, but one does not care to sit down in the mud! Everything that comes into contact with it is spoiled, and one has to stand the whole time.

At length we come up to level ground again. I am too tired to sit and let Gulam Hussein scrape the extra sole off my boots. Then our train moves on through the darkness and the mud which squelches under the camels' feet. My steed behaves fairly well, but slips about suspiciously. The rain has abated, and there is only a fine drizzle. The pace is terribly slow. Bang! there is a camel down again and the train halts. The men hurry up to help, and the fallen hero is hoisted up. A little farther and another falls. We sit awaiting our turn, and cannot tell what is going on in the darkness.

But at last a better time comes. At another, broader furrow, filled with salt water, one of the men calls out Rudkhaneh-i-gez. Only to hear the name brings a feeling

of relief. It means "Tamarisk River." Here, then, we come to the first outposts of vegetation towards the desert sea.

The furrow is directed towards the south-east, and on its left bank we are at last on firm ground, the outermost edge of the detritus fans with sand and pebbles, where there is no need to fear falls. It is nearly two o'clock in the morning when the Kevir comes to an end, and we land on its shore with a feeling of satisfaction as if we were saved from a sea of mud.

We make for north-north-west, over gently undulating ground, and the men are soon asleep again on their camels. I propose to encamp here on sandy ground, but the men say that they will go on to *abad*, or inhabited country, before they halt. It is near, they say, but I wonder how many beats each clapper in the caravan strikes before it stops. And then we do stop, and stop dead. There is talking, quarrelling, and scolding in front, and I repeatedly hear the amiable words *peder seck* and *peder sukhte* (thy father is a dog, thy father is burnt). One can hear that a fierce dispute is going on, and that the excited men are striking one another as hard as they can. Gulam and Ali are sleeping like pigs, but when I have roused them up and sent them to the front to see what is the matter, they bring me word that we are at the village of Mesre-i-demdahaneh, and that the inhabitants will not let the caravan go on to Peyestan. They want us to stay here through the night. All caravans must do so which come from the Kevir, they say. Those which come from Shahrud stay at Peyestan, but Mesre-i-demdahaneh must also have a little profit from the caravan traffic. The two villages compete for this advantage, and are therefore mutually hostile.

The men from Yezd will not give way, and the men of Mesre forcibly prevent them from going farther, and so the quarrel is kept up. When the former perceive that they cannot continue on their way they hurriedly unload the camels, throwing the loads on the road anyhow, and abandon the whole caravan to go off themselves on foot to Peyestan. Their intention is to stir up the people in the last-mentioned village, and with their help to make the

Mesre men load the camels again and let the caravan proceed to Peyestan.

However, as we had nothing to do with this squabble, we asked the people of Mesre to give us houseroom. They supposed we belonged to the Yezd caravan, and were inclined to continue the quarrel, but after they, with some hesitation, recognized that I was a *ferengi*, or European, they became quite civil. Their wretched huts, however, were such that one could not be induced to sleep in them except in a case of great emergency, and therefore we decided to go on to the village Sadfe, whither it is reckoned half a farsakh compared with a whole farsakh to Peyestan.

So we moved on again after this nocturnal intermezzo, and directed our course west-north-west over gently undulating steppe. It took us an hour to reach the village, where we arrived at nearly five o'clock on the morning of February 5. It was very difficult to rouse up some of the people, who were by no means prepared for a visit from a European at this hour. But it was managed at last. A man showed us the way with an oil lamp to a *balakhaneh*, up a flight of steps, and here we found a small room without a window, where Gulam Hussein swept out the worst of the dust and dirt of ages. The four young girls of the house made up a welcome and much-needed fire and talked quite freely with me, while Gulam made ready my supper. Ali Murat remained in the yard to attend to his camels, which had so well earned a day's rest.

At six o'clock the supper was ready, and it was certainly not too soon after a fast of sixteen hours. It consisted as usual of a roasted chicken, eggs, bread, and tea, and when it had been duly discussed, I did not give myself time to light a pipe, but threw myself down incontinently on my rugs and cushions and slept the sleep of the just. We had risen again to 3071 feet.

We had then succeeded in crossing satisfactorily the Kevir along the line Jandak–Sadfe, a difficult and troublesome journey, and now at its last stage I was convinced that the descriptions by the natives of the risks to be encountered were not exaggerated. The distance between Hauz-i-Haji-Ramazan and Sadfe is 85 miles, a short journey

in itself, which we accomplished in forty-eight hours, the two rests included. Of this distance 68 miles lie in the Kevir. A laden caravan does not march quickly and does not make long day's journeys, and goes still slower when the ground is such as it is in the Kevir after rain. We had certainly been lucky in our journey; at the beginning the wet clay was drying, and only on the last few miles it became soppy again. Had this second rain come twelve hours earlier we should have been in a dangerous situation.

But our desert expedition was not yet ended. Our caravan was on the way to Khur; we ourselves were to proceed to Turut to undertake a second crossing, and I should thus have an opportunity of determining the breadth of the desert along another line. I had already found that the road from Jandak to Sadfe crossed the Kevir at the narrowest place in a part where the desert is contracted like an hour-glass. On the road from Kuh-i-nakshir to Jandak I had seen that the western basin of the Kevir expands considerably. I had now to combine my own observations with others to ascertain the conditions of the eastern basin.

We had always one danger to fear; a fresh downpour of rain might cut us off for a time from the caravan at Khur. And to rejoin our men we must expose ourselves to the risks of another desert journey.

CHAPTER XXXII

TURUT

FEBRUARY 5 was given up to rest. I slept from half-past six o'clock in the morning till three o'clock in the afternoon, and before I had finished dinner twilight was coming on again. As usual, I questioned some men who knew the country well. They said that the road from Semnan to Sadfe passes through Mulke, Anjilau, Ser-i-cha, with sweet water, Kal-i-Rishm, Husseinan, Mahallaman, Siengk, and Bursuan, and that it is 20 farsakh long. From Sadfe to Damghan one passes through Kosar or Kuh-sar, Mahabad, and Hassanabad, and the distance is 14 farsakh. There are many villages in the district of Kuh-sar. Two farsakh north of Sadfe stand the ruins of an old fort called Kale-i-pagale or Kale-i-dukhter, where some time ago silver coins were found and a brazen bowl. The road to Shahrud runs through Turut, Cha-morra, Tut-bené, Cha-jam, Bulend-i-cha-jam-derre-dai, Cha-bager, Lejené, and Husseinabad. Between the wells Cha-jam and Cha-bager stretches a kevir about a farsakh broad, and there flows at times a *rudkhaneh-i-shur-ab*, or stream of salt water. This small subsidiary kevir is said to be elongated from east to west for a distance of 8 farsakh, and is evidently in connection with the salt desert in which I made an excursion in 1890 from Gusheh on the Khorasan road. From Sadfe it is 5 farsakh south or south-west to a salt well called Cha-leges, where some herdsmen feed their camels. Thence runs an old path, now never used and therefore obliterated, to the road we followed through the Kevir. What the Kevir is like to the west they did not know; there is *sahara* or *biaban*,

they said, and there is the Rig-i-jin, or the desert of evil spirits. A man who tried to cross this country turned back after two days.

It was very strange to hear their statements about wild camels, *shutur-i-vash-i-biaban*, in the dreadful desert where human beings never go. Wild camels occur in the deserts of Central Asia, and why may they not exist in the Persian? I very much doubted, however, these romantic statements, for why had I not heard of these animals in other parts, as their existence leaves a deep impression both on the wastes and in the minds of the men who live around? There is not a trace of vegetation in the Kevir, but perhaps belts of sand or relic hills with a vegetable growth might render it possible for wild camels to support themselves as on islands in the midst of the ocean. But the whole story lost much of its credibility when an old man related the following incident, which was supposed to have happened a long time ago.

A haji was on the way to Mecca, and at the edge of the desert left his camels, a servant, and two women, with orders to wait till his return. However, it was several years before he came back, and then he found that the whole party had gone off to the *rig-i-jin*, the heart of the great desert. He looked for them, found their trail, and at last the people themselves, and, enraged at the liberty they had taken, demanded where his camels were. Oh, they had all died, but their young ones were still living and had run away into the desert and could not be caught. The haji, presumably edified by his pilgrimage to Mecca, had made short work of the matter and slain his unfaithful servants. But the camels survived in the desert, and their descendants were living there to this day, though my informant at Sadfe could refer me to no one who had seen the animals with his own eyes or even their spoor. But he had known many men who had acquaintances who had seen them. The report, therefore, was very vague and untrustworthy. He also declared that there was a small hill in the rig-i-jin with a *burch* or castle, a mulberry tree, and a spring of fresh water, where the wild camels drink. Surely the whole tale has sprung up because a number of camels

once on a time ran away or were entirely lost and forgotten, and, left to themselves, became so shy and wild that they avoided men and their resorts. Usually such stories are added to as the time becomes more remote. At the Rig-i-jin proper, or the sandy desert in the neighbourhood of Alem, we heard nothing of wild camels.

Near Sadfe was also an old town, called Shahr-i-surkh, where some singular spirits disported themselves. Many years ago a man had found a treasure of gold and silver coins in a garden there. But when he was urged to show where the treasure lay hidden, the town was suddenly surrounded by a score of gardens, and he could not tell in which of them he had seen the coins. Another man had also found a treasure in the old town, but after the discovery he became lame and dumb, so could not reveal the position of the place. A dervish could see the mysterious place when he was at a great distance from it, but not when he was near.

My body is still tired when Gulam Hussein wakes me next morning, but it is pleasant to be on the way, and it will be still pleasanter to know that the dreadful desert is behind us when we have crossed it a second time. But I must first draw a panorama of the whole district, and therefore I climb on to a commanding roof where I am escorted by fifty men and boys. As I do not wish to be buried under the ruins of the house I drive them away, keeping only two men well acquainted with the geography of the country. Meanwhile the camels are laden, and then off we go on the road to Turut.

In a couple of minutes we are out of the village, the main part of which we leave on the right; as also the neighbouring village of Mehdiabad, and to the east-south-east a small low hill, Kuh-i-kohuan, is seen on the edge of the desert. Our path crosses a succession of dry erosion furrows, one of them containing a kanat with a vertical well about 30 feet deep. Through all these furrows streams flow after heavy rain, washing down masses of detritus and the very finest silt to form the yellow clay of the Kevir. Here, as on the southern side of the desert depression, it is apparent that it is the peripheral drainage

that has filled, and is still filling, up the great cavity and carrying on its work of degradation.

Immediately beyond Pil-i-seng, or the "stone elephant," the eye is caught by the appearance of green fields in a large furrow, where a kanat carries briny but crystal-clear water. The place is called Kellau, but there are no men or cabins there. Some peasants come hither daily from Peyestan to see after the tillage, and several such outlying fields are to be found round the villages.

We reached through a winding hollow way Peyestan, of which we had heard so much, and found it a grey, dismal, but picturesque village. It is said to contain 100 houses, and owns 8 camels and 500 sheep. A crowd of people were out on the small open market-place to gaze at us, and among them were some young women, very dirty but good-looking; when they are not much more than twenty years old they look old and worn-out. Here, also, our travelling companions from Yezd were resting, who guided us so cleverly through the Kevir, and they came up and greeted us civilly and wished us a good journey. They were going on in the night to Turut and Shahrud.

Beyond Peyestan the pebbly ground falls very slowly, at most three degrees, down towards the sharp edge of the Kevir, and to the right branches off a road to Kuh-i-kohuan, where there are water and tilled fields. To the left is Sham-shirti, an adjacent commanding eminence. Our pace is good, and the small isolated hills are soon behind us. One of these lying more to the east is named Bend-i-masian. Below this hill, at the base of the screes, a shallow fresh-water lake is sometimes formed by a flood of rain-water, which, it is said, sometimes remains for quite twenty days. Now only light yellow mud is left, looking almost white in the light.

We mount up perceptibly north-eastwards in the direction of a projecting hill Kala-avurkhune, and the higher we rise the more extensive is the view over the Kevir. There is a faint glimpse of Kuh-i-Jandak far in the south, whence we have come. In many places dark blue rain fringes hang down from the clouds over the desert—are they about to cut off our retreat and prevent

Löss Terrace at Turut.

Turut. Kuh-i-ser-i-kevir (S. 17° W.) and the Road down to the Salt Desert in the Distance.

Mud Cupolas in Turut.

us rejoining our men? But it is no use grumbling. Now we enjoy a ride over solid ground, which will not be spoiled however hard it rains.

At one o'clock the temperature is 47.7°, there is a fresh breeze from the north-east, and the climate is colder and rawer on the northern than on the southern side of the Kevir. The steppe plants grow more luxuriantly, and only the light grey path is free from them. In some places flocks of sheep are grazing.

We pass on, the camels stretch out their legs, new views open before us, the projection towards which we have been marching is close at hand, and far in the east crops up Kuh-i-ahuan on the edge of the desert. Hauz-i-hatam is a little cistern and Shur-cha, as its name implies, a well with briny water. Two miles off to the north, on a light-coloured mound, stands Imamsadeh-Nur-Ullah, also called Imamsadeh-pir-i-merdan, or the old man's holy tomb, whither the people of the country are wont to make pilgrimages.

After we have rounded the promontory, the higher mountains in the north appear more prominently, all southern ramifications or offshoots from Elburz. Beyond a small saddle the name Rudkhaneh-i-gez-i-nesfe or the "halfway tamarisk river" announces that we are halfway to Turut, reckoned from Peyestan. Tall tamarisks grow in this and the next erosion furrow, and not infrequently there is a thin layer of sand on the bottom of the beds. The ground is very uneven, but now we turn east-south-east, and the pace is rapid. We cross a succession of small saddles, all lying on spurs pointing towards the Kevir. One of them, which seems to be the highest, rises to 3753 feet. The rocks are partly a tuff-like product of weathering, partly basalt and porphyry. The view is somewhat obscured by the fine dry dust driven up by the rising northerly wind. The road is excellent, but the traffic insignificant; all day long we meet only three small caravans of asses, and overtake a man carrying tamarisk to Turut on five camels. Hauz-i-Peyestan is the name of a reservoir with a domed roof at a distance of 5 farsakh from Peyestan. There is little more than half a farsakh to

traverse to Turut when the road divides, the left branch being the great caravan road from Peyestan to Shahrud. Near Turut we pass a bit of salt desert, which does not seem to be connected with the great Kevir. It is already dusk when we make our entry into Turut, through narrow lanes between low walls, and are greeted by fifty noisy gapers. It took a good hour to find out a tolerable hut.

Turut is said to contain 200 to 250 houses, and at the most 1000 inhabitants. The place obtains its water from a river with its source 4 farsakh off to the north, and its name is simply Rudkhaneh-pai-kale, or the "river at the foot of the fort." Now it contained only a tiny trickle, which formed in the hollows of the bed almost stagnant ponds of yellowish-brown dirty water. After rain, and especially early in spring, the volume of water is large, but even then does not reach the Kevir, for it is drawn off on the way into several cisterns. In summer it fails altogether. On the other hand, the kanat of Turut always carries water, even if there is no rain.

The river is deeply cut into deposits of löss, which rise on both sides into vertical walls 40 to 50 feet high and are here and there, especially at sharp bends, undermined by the running water and hollowed into caves. In some places these have been further excavated and enlarged to form storehouses for straw and firewood. The vertical wells of the kanat are sunk right through the löss bed, and its stream emerges from the base of the löss terrace, where it forms a tiny waterfall. The water is clear but not quite sweet. The mouths of the vertical shafts at the top of the bed of löss have been widened out by rain, and on the sides innumerable small rain furrows run downwards. When the ground is smooth and wet, as was the case now, it is dangerous to go near these funnels. A man may slip down into a yawning well and find himself in a very unhappy plight at the bottom.

A large part of the very picturesque village lies at the foot of the löss terrace, on the front of which, facing south, stands an *imamsadeh*, or holy tomb, in a fine situation, with a guristan where sat two women meditating at the graves of their departed kinsmen. There is no bazaar, but there

103. Emir Kasim, 22 years old, of Turut.

104. Hussein, 24 years old, Turut.

are a *hammam* or bathroom, a *meshid* or mosque, and a *burch* or old castle, probably a relic of the time when men here must be prepared for the plundering raids of Turkmans. The tilled fields, which were now green, also lie of course below the terrace, and are irrigated by the branches and channels of the kanat. The allotments are separated by walls of sun-dried bricks 5 feet high. To the north the limit of the löss area is very distinct where the yellow colour breaks off at the grey slope of the screes.

At a distance of 3 farsakh to the north, at the foot of the hills coloured in shades of yellowish-red, stands a saint's grave. It is called Imamsadeh-Shah-Aulia, and was erected in honour of the brother of Imam Riza. The mosque-tomb seems to be built of burnt bricks, but is covered outside with tiles, and this is a mark of great veneration. Fresh water and pastures are to be found in the neighbourhood. When the saint's festival is held at the beginning of summer, the people of Turut and the surrounding villages, men, women and children, flock to the tomb with their sheep and camels, where they spend ten or fourteen days; it is at the same time a summer holiday, where perhaps religious enthusiasm plays a less important part than the pleasures of life.

Turut has 300 to 400 camels, which are employed in caravan traffic. Four kran a year are paid for each of them as *maliat* or cattle tax to the Shah, but barely half of the product of the tax appears to reach its supposed destination, the rest sticking to the hands of the officials on the way. In the time of Nasr-ed-din Shah this tax amounted only to 1½ to 2 krans, and much displeasure is felt at the increase. Half a kran is paid for a sheep, and the village owns 2000 sheep. The other domestic animals are 300 asses, a dozen cows, and two horses, besides dogs and fowls. An adult man pays a tax of 16 kran. Turut provides 50 soldiers for the service of the State. It was now their turn to come home to their village, and they complained that they had not received a farthing of pay for their service; their recompense was retained in their officers' pockets.

Turut produces wheat and barley, white and red beet,

onions, and green vegetables, melons and water-melons, grapes, pomegranates, mulberries, almonds, apricots, etc., besides cotton. It is a great advantage to Turut, as also to Jandak, Husseinan, Peyestan, and Khur, that it is a port on the coast of the desert sea. Hither come numerous caravans from Bandar Abbas, Bahramabad, Kerman, and Yezd, bringing tea, cotton, spices, etc., while the caravans from Khur carry dates, tobacco, etc. On the return journey they are chiefly laden with grain, sugar, raisins, cloth, etc. It is estimated that about four hundred caravans pass yearly in each direction, and Turut, which really is only a station on the great caravan route between Khur and Shahrud, derives a not inconsiderable revenue from the traffic. On this route the more lively traffic sets in at the beginning of May and continues through the summer, because during the warm season there is a certainty of escaping rain. The road from Turut to Khur is considered to be more dangerous in winter than that from Jandak to Peyestan; if it rains equally over both routes, the western takes four days to dry, while the eastern remains wet and slippery for quite ten days —a statement which seems to indicate that the desert there lies lower and deeper, but which does not agree with observations of altitude. For, according to these, the eastern road is a few feet higher than the western.

In winter also several caravans pass through. Six days before a Yezd caravan had landed, which had been caught by the rain in the middle of the Kevir. It had left all its baggage in the desert in order to try and get its camels safely to Turut, and after a week's exertions the men had managed to bring themselves and their camels out of the difficulty. After a few days' rest, during which the camels had eaten their fill of straw and cottonseed, they had returned in good weather to fetch their baggage.

In Turut, as in Jandak and Peyestan, I was assured that there were no other routes through the Kevir but those I travelled along. Only on these two routes is the desert navigable, and if one diverges from them to the east or west one comes into belts of desert where the ground is perpetually wet, and one sinks in the mud.

105. Agha Muhamed, 60 years old, Turut.

106. Kerbelai Ali, 60 years old, Turut.

Such ground we had ourselves met with in the neighbourhood of Kuh-i-nakshir. Particularly on the eastern route, from Turut to Khur, it is said that one should never diverge ever so little to the east or west if one would not risk sinking.

While we were staying over February 7 in Turut there was fine dense rain several times, and we were told that the desert would certainly be *gel* or slippery again. We had therefore to spend another day in waiting and arm ourselves with patience, and so much the more that there was always a chance of more rain, which might delay our return to the main caravan indefinitely. And every day we were more anxious to go. With our men we had every possible comfort, but as long as we were separated we lived hardly.

We were therefore prepared to be cut off from our caravan and be obliged to make a flanking movement, for if the Kevir became so soddened by more rain as to make the journey impossible, we could do nothing but follow the eastern margin of the salt desert to Tebbes. There is such a way, but it takes twelve long or fifteen short days' marches. I wished, however, to avoid it, for Lieutenant Vaughan travelled by it in the years 1888 and 1890, making a very valuable contribution to our knowledge of the Kevir's easterly extension.

During the delay caused by the rain I could not spend the time better than in collecting data about the surrounding country and drawing types of the people. The inhabitants of Turut proved to be of quite a different temperament from those of the villages on the south of the Kevir. It cannot be because Turut is a port, for in that case the people of Jandak, Peyestan, and Khur would all be of the same pattern, but in Turut they were wilder, bolder, and more inquisitive. There was no difficulty in getting them to sit as models when I gave them two kran apiece, but I had not finished more than a couple of portraits before the courtyard was crammed with unruly ragamuffins, who pushed in all directions and disturbed the sitter. When I had finished the fourth head they were so closely crowded round me that there was great danger of migrating vermin,

and I thought that if I retired to my hut for a while they would go away. But I had scarcely closed the door before the little daylight which crept in through the smoke vent of the cupola was intercepted by two inquisitive heads, and men stood persistently looking through the cracks of the door and making their remarks. "Now he is reading; now he is smoking; leave off smoking; hallo, Sa'ab, the sun shines, come out; come and give me two kran, I am poor"; and so on. And then they broke in the door and rushed in, screaming and laughing, Gulam Hussein and Ali Murat trying in vain to keep them back. As a general rule the smaller and more isolated a place is, the quieter and more peaceful are its inhabitants. In a large place, on the other hand, where they have much communication with the outer world, they are bolder and more forward.

At seven o'clock in the morning of February 9 we had a temperature of 32.5°, and a slight breeze from the south-south-west made it feel cool. Gulam Hussein had replenished our stores with mutton, bread, roghan, eggs, sugar, almonds and dates, tobacco, matches, charcoal, firewood, straw, barley and cottonseed, besides two sacks of water. No small proportion of the people of the place filled the courtyard to witness our departure, and we paid two stout fellows to keep the inquisitive crowd at a distance. But still they followed us in close groups, which did not melt away till we had left the village a little distance behind us. At last five only remained to molest us, two of them dervishes, who recited prayers over us as they walked in hopes of reward, and when we had given a kran to each they asked for more. These also gave in, but the other three hung on our heels like bloodhounds. Two of them, our hosts, had been paid already, but they wanted an extra bakshish. After we had got rid of them there was only a Seid left, but he stormed and scolded worse than the others, and asserted that as a religious dignitary, and as a Jandak man, he had a right to demand a kran as toll from every caravan which came from Jandak. If he did not receive it he would take one of the camels. Ali Murat was as obstinate in refusing, but I thought it would be well

worth a kran to be quit of the man, so I threw him a coin and he trooped off.

We had heard that our travelling companions of the Yezd caravan had made a détour to avoid Turut and its importunate and troublesome inhabitants. We had also heard that a caravan of ten camels was to set out in a few days from Turut for Khur. Their owners had begged us to wait for the sake of company, thinking also, no doubt, that we should plough up a dry track through the desert for their animals. But their expectation was quite disappointed.

Meanwhile the löss terraces, cultivated fields, canal, and brooks are behind us, and when we cast a look back from the open ground at the singular village, we see its cubical mud houses with their round cupola roofs like clumps of mushrooms as yellowish grey and bare as the terrace out of which they rise, and which constitutes their building material. A little longer the yellow outlines of the village stand out sharply against the dull background of the detritus banks, and then are hidden by the hillocks, and there is only desert around us.

The path crosses a succession of yellow loam hills with pebbles heaped up in the furrows between them. The land is hollowed out by the erosion of water from the north-west, and we go up and down in it. Seams of gypsum protrude from the sides of the hillocks and glisten in the sun. Ali Murat has been this way many times, and we need no other guide. At Do-teppe, or the twin mounds, where the path goes through a passage between two small isolated hillocks, we have completed the first farsakh. At some distance to the east appears a bay of the salt desert, where several torrents open, so that the ground is treacherous and very dangerous for strayed camels. At its eastern side rises a small hill, and beyond it stretches a larger bay of the Kevir. Ali Murat believes that the shore of the salt desert runs on eastwards in curves in the same manner, bays and jutting promontories alternating.

Out in the nearest bay a score of small knolls stand up above the level surface of the Kevir like rocks along a coast. Before us to the south-west is seen the small hill Kuh-i-ser-i-Kevir, or the "hill at the beginning of the

desert." We shall round its eastern point, which looks out towards the Kevir, and it will be our last landmark when we go out into the desert sea again. The yellow hillocks soon become flatter and then cease altogether, and then follows hard ground with small pebbles gently sloping to the east-south-east and crossed by a number of dry channels among meagre shrubs.

The desert sea, with its shades of brownish grey, now stretches before us farther than we can see. Due south is Kuh-i-Khur, the end of our journey, faint and dull in outline like a light blue streak a little above the horizon, and to the west of it is seen the continuation of the low hills which lie on the south side of the salt desert. At Hauz-i-ser-i-Kevir, or the "reservoir at the beginning of the salt desert," we have covered 3 farsakh. The cistern does not now contain a drop of water. The pebbles, now still finer and fewer, consist of porphyry, quartzite, gypsum, flint, coarse-grained basalt, sandstone with veins of quartz and calcite, and white, fine-grained limestone. The ground becomes flatter as it falls slowly to the margin of the desert, the pebbles come to an end, and here and there we pass small flats of salt clay of the same kind as in the Kevir.

The last belt of firm strand is very narrow, and then we are out on the Kevir, here porous, rough, and dry, and all the alarming reports we have heard prove to be baseless. Only in the shallow furrows, where the last tentacles of the rivulets pass out into the desert, is the clay wet and slippery. The boundary between the firm ground and the Kevir is so sharp that its position can be determined to a yard. Down here we have certainly the feeling of standing on the shore of a sea or a large lake. East and west the small hills projecting like capes and points grow fainter, and behind us are seen the reddish uplands above Turut. We have descended 358 feet from the village, and are now at a height of only 2313 feet.

Now our route runs south-south-eastwards, and we march over nasty, wet, and slippery ground, where the camels trip and make their riders nervous. They get on very well, however, for the path is holey and the holes

afford a support to their slipping and sliding feet. When we come to the track of the caravan which was recently out to fetch the baggage it had left behind we made easier progress, for the clay was drier in the track. This incident reminded Ali Murat that fragments of the finest faience are sometimes found at a certain place in the interior of the Kevir. Most of it, however, had already been carried to Ispahan to be sold to Europeans. The fact is that a large caravan loaded with faience travelled many years ago through the desert and was attacked and plundered by a band of Turkmans, who left the loads but took the camels, and led away their owners to sell them as slaves in the markets of Merv and Bukhara.

The desert is certainly not in a favourable condition, but we march on as fast as we can. Some belts are very slippery and the camels swing their legs as if they were practising skating. In a hollow that is fortunately quite narrow we are nearly drowned in the mire, viscous, sticky and heavy, and clinging to our boot-soles in large flakes. Far away to the east another hill crops up from the level ground, Kuh-i-Halvan, with the large village Halvan situated on its western side. Ali Murat calls a place on the road Chil-i-gur-i-Khur, or the "place of the wild ass from Khur"; it seems that a wild ass from the south once died at this spot.

It is quite a relief to march a little later over quite dry ground. In two places are seen remains of straw and camel dung where caravans have rested. To the east the desert looks yellow, to the west dark, but it would be a mistake to suppose that the country is drier towards the east. The difference of colour is produced solely by the declining sun. To the west the ground is darkened by the shadows of small knolls and inequalities in the clay.

The sun descends in rosy splendour and draws the daylight down with it like an enormous magnet, and an hour later the moon rises, equally red but with a duller light. The lantern of night is, however, as welcome as the sun, and lights up the dismal desert with its pale brilliance. The sky is almost quite clear, and therefore

the peculiar form of the moon can be distinctly discerned. A little above the dark level line of the horizon appears a lancet-shaped streak of light which gradually spreads, and even when the moon has risen clear above the horizon it still retains its elongated elliptical form. But the higher it mounts the rounder becomes its disc, and the more its colour passes into yellow and finally into white. The shadows of the camels which lately, in sunlight, lay to leeward now pass over to starboard, but they are very faint, for the moon lies low, and a slight remnant of daylight still trembles in the west. Soon it pales, the moon rises higher, and the shadows grow darker. In silence we wander on steadily towards south-south-east; we are now again in the dangerous desert, and our chief aim is to escape from its grip. At the way-mark, Bend-i-Nadir-Ali, we have travelled 4 farsakh from Hauz-i-ser-i-Kevir.

We had marched continuously for ten hours when Ali Murat halted at a spot where a litter of straw showed that a caravan had rested, and he asked if I objected to stay the night there. The weather, he said, seemed settled; we had nothing to fear, and we might sleep peacefully, gathering up strength for the tough journey on the morrow. No; I had certainly no objection to stop, the camels were unloaded and tethered round their straw heap, the camera-stand and burkha were set up, and while I made my notes Gulam Hussein laid my evening meal. The height was 2352 feet.

Here it is oppressively still and silent, no sign of life, not a sound, not a nocturnal bird is heard shrieking in the distance; even Nevengk, having nothing to bark at, lies quietly curled up beside the camels. This is the home of death with an absolute absence of organic life. We are the centre of this round level dark disc, equally distant on all sides from the horizon. The only sound heard is the ceaseless chewing and munching of the camels and their deep breathing, and now and then the crackling of the fire. The two men are silent, or if at any time they do talk, it is in a subdued tone, as though they feared to disturb the peace of the desert. We listen in vain for the ring of bells; no other travellers are out to-night. And over the silent waste the moon sheds its solemn light.

CHAPTER XXXIII

SOUTHWARDS THROUGH THE KEVIR

We have to be smart in the desert, and have no time to lose, so we go to rest as quickly as possible. The moon peeps into my tiny tent here and there. When I wake, a little after midnight, the interior of the tent seems singularly dark, and I throw back a flap of the burkha to find the sky covered with densely packed clouds, and the hostile wind, the bad-i-Khorasan, moaning and whistling from the north-east. Shall we be caught in rain now in the midst of the desert, and be compelled, like so many others, to abandon our camels, and with failing strength endeavour to escape to the nearest coast?

We got up at five o'clock, breakfasted, and began our march an hour later, when the temperature was 27.9°, and the wind blew gently from the north-east. The sun rose brightly, but it had scarcely cleared the horizon before it disappeared in a heap of dark clouds. Now the desert looked dark to the east and light to the west. The day was cool and gloomy, but the path was dry and good, and I walked on in advance. As far as we could see before us to the south, the ground seemed to be unchanged, and if only the weather held up we should manage to reach land safely.

Far to the south are seen the light blue outlines of Kuh-i-Aruzun and Kuh-i-Khur-i-gez—we hope that they will rise ever higher and become more distinct before we encamp at night. The southern horizon lies as sharp as a knife-edge, and a tendency to dune formation is seldom

noticeable in the sterile clay of the desert. At one place ridges barely a foot high run parallel to one another, probably produced by some lateral pressure in the clay masses. A belt, 500 yards broad, consists of dark material, and is smooth and wet, and farther south we pass three hollows only 50 to 65 feet broad, lying entirely in black mud. They are like erosion beds, and stretch out east and west as far as the eye can see. At the south side of each stands here and there a discontinuous strip of salt three-quarters to one inch thick. After another dry belt follows again black mud in a bed containing salt. It is hard to explain the occurrence of these beds, for erosion by running water is scarcely conceivable on this level desert. My men also assured me that water never flowed through them, though after rain they might contain pools of stagnant brine. As they are parallel to the northern and southern shore lines of the desert, whence the solid matter is washed down, these wrinkles are also probably due to tangential pressure. In a bed of running water cakes of salt would not find time to collect.

"*Hei kun, sor shud*" ("Press on, it is noon"), calls out Gulam Hussein at eight o'clock to Ali Murat, who sits half asleep on the foremost camel. We now ride, all three, jolting over this dead sea where not a fly hums, not a tuft of grass, not an inequality in the level horizon breaks the monotony. The only signs of organic life visible are the tracks and leavings of passing caravans or a small dead bird that has not been able to fly farther. We look in vain for a small stone or grains of sand which would indicate the proximity of land. Nevengk is much interested in all the carcases and skeletons of camels we pass; he examines them thoroughly, lies down on his back, rubs and scrubs himself against them with a friendly growl, and smells of them for days after. He often takes a rib or a piece of flesh with him and holds it for half-an-hour between his teeth, and when he is tired of it he digs a hole with his forepaws, buries the bone and fills up the hole with his nose. He is unnecessarily cautious in this country where there is no one to rob him of his prize, and besides, there are plenty more skeletons all along the route.

To the south the desert looks dark, and we suspect there is mud; but after three-quarters of an hour's ride we are not appreciably nearer to the belt. The distances are great, and the prospect does not change. When we have ridden three hours the hill of Khur-i-gez seems only a mere trifle more distinct. The hill at Jandak, which was very plainly visible in the morning, disappeared during the day, but came again into view in the evening.

Where the ground is dark and soft the path is often worn down a foot deep by passing caravans, but it is always in one track, not in a sheaf of parallel paths, as is often the case on the western route from Jandak. Evidently caravans on the eastern route never move in several columns, but only in one long row. The ground is lumpy all the way; the holes lie a foot apart, and are in general a foot deep, seldom two. The knolls between them lean over, and are steep towards the south. A round pool of some 20 square yards in area is filled with muddy water; the ground over this small space seems to have sunk down.

Now we are on the black ground, and it consists of soft, sticky sodden clay which adheres in flakes heavy as lead to our soles. It is no use to remove them, for after two steps there are fresh ones on again, and they make walking still more slippery and uncertain. They cannot be removed by the hands, but only a knife can pierce through this vexatious load. Nor does one care to ride on this ground, where the camels tumble one after another. "*Shutur semin mikhured*" ("A camel bites the dust"), say the Persians. Before we get out of this treacherous desert the camels have a complete cuirass of mud on their flanks and bellies.

Then the ground becomes half dry, and its surface is crumpled into very flat long waves. Each of such crests is on an average 20 yards broad and 20 inches high, and in the troughs between the ground is dark. They usually run perfectly straight in both directions as far as the eye can see, but occasionally they are slightly curved; their extension is from WSW. to ENE. Either they are due to some thrust in the general mass of the kevir or

they are temporary formations caused by variations of temperature.

Distances are deceptive, and it is impossible to judge of the size of an object. At the edge of the Kal-i-nemek, or "salt river," stands a cairn of salt blocks, 3 feet high, which at a distance assumes the dimensions of a tent or a camping caravan. Round its base extends a horrible belt of mud, also running WSW. to ENE. The camels slip and reel like rudderless ships in a high sea. A camel skeleton on the horizon is mistaken by Gulam Hussein for an approaching caravan.

The southern hills rise slowly up from the horizon, and new summits crop up like dark points, while the hills to the north of Turut sink and fade away. The first thing we do when we mount our camels is to cut away our soles of mud with a knife. The ground is just the same as in the salt desert of eastern Tsaidam, the same hard, dry, porous crust of clay impregnated with salt, which is called *shor* by the natives of Turkestan, and which also occurs in the desert of Lop.

At half-past four o'clock we have travelled a farsakh more than half-way, and are at the point Chil-i-palun-i-kher, where another mud-belt begins. It becomes dusk and the clouds close up, and it is quite dark before the moon rises, veiled in clouds, but still shedding a diffused light. It is too dark and too tiring to splash along in the mud, so we ride winding and jogging through the darkness. A slap is heard in the mud, one of the camels is down, and the others stop till he is helped on to his feet again. A fine thin drizzle begins; what will it be like if a regular rain softens the desert, already wet and troublesome?

But now we can go no farther; we have done enough for the day after fourteen hours of continuous march. After some search we find a fairly dry place, but there my sleeping rug is stuck fast next morning. We dig a hole by the light of the fire to examine the structure of the upper layers of earth. At the top there is a third of an inch of wet clayey mud, then a layer of hard salt $2\frac{3}{4}$ inches thick resting on half-dry clay, with a depth of 6 inches. Beneath this the clay seems to become wetter, and at a

107. A Rest on the Wet Salt Crust.

108. The Salt Crust in the Southern Part of the Kevir.

little more than 3 feet deep it is so sodden that the iron crowbar sinks slowly in with its own weight. If we did not take care it would be lost beyond recovery in the slough, over which the comparatively dry clay and salt layer forms a crust like a sheet of ice on a swamp. Owing to the hard salt layer in this part where we now are we do not sink through the outer clay. The observed height was 2448 feet.

In the night before February 11 the minimum temperature was only 41.4°, and in the morning the clouds were more compact and more spread over the whole sky than ever, and a fine light drizzle fell at times. Both to the north and south the hills were extremely dim and indistinct, in consequence of this annoying rain mist. All the time we had had a singular mixture of good and bad luck: good in that it had not rained heavily, bad because we had not had a single fine day. But fortunately we were much more than half-way, and, according to Ali Murat, had only 9 farsakh more to the shore. Nine farsakh is a good stretch, even on ordinary ground, but on the clay it amounts to twice as much. It was thick, half dark, and disagreeable as on the coast of a northern sea in autumn.

When the new day dawned we could see that we had come into a belt of miry clay, and that the comparatively dry spot where we camped was like an island in the midst of it. The fine rain dripped from our clothes and from the camels' wool, and from the map sheet I always had at hand to take my bearings and insert my drawings. The caravan which proposed in Turut to join company with us seemed to have been wise in waiting. We did not start a minute too soon, for if we had delayed we should have had to wait several days, unless we preferred to choose the eastern roundabout route.

Though the firm ground above the slough is so thin no sign of yielding under the weight of the camels was perceptible, a circumstance probably due to the salt layer. If that were absent it might be risky to spend a night on this abyss of loose mud.

Then we leave the small island and splash on again out into the slime, which squelches and spurts up round our

shoes and the feet of the camels. A white powder of salt particles covers the clay in some parts, which is now dark in the hollows but brownish yellow on the hillocks, a difference depending entirely on the varying degrees of humidity. After an hour's march we are quite worn out, owing to these unbearable soles of mud, which we try again and again to chip off; but it is no use, for they are on again in a minute. The wretched ground seems determined to suck us in and hold us fast. If the sun would come out for a few hours the surface of the desert would become a little better, but it requires ten days to dry after ordinary rain. If we leave the clay on our boots a while after we get on the camels it dries rapidly, but the ground itself seems as if it would never dry, which is not remarkable since the under layer is so sodden.

We have a choice of walking till we drop from weariness, or sitting on the camels, waiting till we are thrown off, and we take these two forms of evil in turn. The farther we travel south the worse the ground becomes. On the Jandak route also the southern half of the desert was the worst. No doubt this is because the rain was heavier in the south than the north. Dense blue-black clouds now sail over the southern country, gradually sweeping out all outlines and details. Evidently the rain is pouring down over yonder, and we wonder if we shall reach land fairly dry-shod.

A change from the tiring mud is afforded us by an interval of salt crust with its surface covered, to a large extent, by shallow puddles of water; at its edge stands a small cairn of slabs of salt. The place is called Dagh-daghu. The thickness of the salt slabs varies from 4 inches to a twelfth of an inch, and in general a crowbar can easily be thrust through the sheet, whereupon water stands in the hole at three-quarters of an inch from the surface. In spring this salt belt is said to lie under a foot of water, which, however, does not cover the adjacent parts of the desert, showing that the sheet of salt is situated in a depression imperceptible to the eye. Such temporary salt lakes are formed in many places in the desert, and this, no doubt, has given rise to rumours of permanent lakes in the Kevir. Here also the salt crust has burst up in

109. Ali Murat and Gulam Hussein cutting a hole through the Salt Crust.

110. A Street in Khur flooded by Rain-Water.

polygonal flakes, with ridges of salt three-quarters of an inch high between them.

We had just arrived at this first narrow salt belt with stable and unyielding ground, which can be crossed in fifteen minutes, when the rain came, chased by a south-westerly storm, splashing and pelting on the bare ground, rattling on the salt flakes, drenching everything on us and beneath us. It began at nine o'clock and lasted four hours, and at ten o'clock it poured down as it never had before. It gave us a thorough cooling after the heat of the morning, but the worst was that the last bit of desert would be very doubtful, and that we ran a chance of coming to grief.

We might, however, be thankful that the rain did not come sooner, for both we and the camels were too tired to quicken our pace, and marched leisurely over the next salt crust, a farsakh broad, which spanned the mud like a bridge and helped us on for a bit of the way. There was abundance of water on its surface; it increased during the rain.

Here we rested for an hour. I wished to test the thickness of the salt, but it proved too arduous a task, and too trying with the rain pelting down. Besides, the salt was hard and tough as potstone. When we had digged a hole 14 inches deep, it suddenly filled with water up to 6 inches from the top, and this water had a temperature of 55.8°, with an air temperature of 55.4°. Under this uppermost layer lies another which we could not examine. Certainly it is at least as thick as the other. At any rate the sheet of salt thins out northwards and southwards, and is as sharp as a knife-edge. No doubt it is connected with the salt belt we crossed on the way from Jandak, but how far it extends eastwards is unknown. It evidently marks the line of the desert's deepest depression.[1]

The strip of salt is bounded on the south by a very steep, loose, and treacherous terrace 10 feet high. Then follows a zone of flat undulations, lying as usual WSW. to ENE., sometimes interrupted by smaller salt flats. Bend-i-pir-i-khattla is a bank 5 feet high, also caused probably by

[1] I shall have an opportunity in another work of communicating the analysis of specimens of salt and clay brought home from the Kevir.

pressure, and hence it is reckoned 2 farsakh more to the end of the Kevir. They are, however, toilsome; the rain-water has collected in puddles, but fortunately the clay is not soft, and its unevenness saves the camels from falling. Shur-ab, or "salt water," is a furrow, 12 yards broad by 3 feet deep, filled with stagnant water. Another similar furrow is called Shur-ab-i-yek-farsakh, because from it there is only a farsakh more; it is 16 yards broad and 10 feet deep, and the bottom is hard and covered with salt. There is a smell of sea-shore here after the rain and in the fresh breeze.

The last farsakh of our long desert march was accomplished slowly and cautiously in pitch darkness. Ali Murat piloted us, leading the first camel, while I rode on the last, led by Gulam Hussein. It was half-past seven o'clock when the smooth ground of the Kevir came to a sudden end, and we had the pleasure of riding over sandy ground where scanty shrubs grew. Here, then, the limit of the Kevir is also sharply marked.

Ali Murat had been in a melancholy mood during the three days and nights of loneliness in the desert, and had not said an unnecessary word; but immediately he perceived the coast again and distinguished the gently rising detritus fan he became another man, and began to joke and talk incessantly. And he was still more delighted when we had firm ground under our feet. Then he began to talk of the Kevir with the greatest contempt, as of a rogue that had tried to trick us but had not succeeded. He spoke of the salt desert much as one speaks of a dog, for which one has the greatest respect but keeps tied up. He reminded me of those sea heroes who quite lose their courage when the ship is rolling on the open sea, but are very boastful and grandiloquent when they come ashore. But I also shared his satisfaction, and was heartily glad to have this dreadful desert behind me, and I was quite sure that I had had more than enough of its salt and its infinite dreariness. It was delightful to sleep on firm ground at a place called Ser-i-do-rah, or the "commencement of the two roads," that is, the roads which lead to Khur-i-gez and Aruzun. Here the ground was covered with coarse sand, which

111. Hussein Kuli, 10 years old, Aruzun.

112. Hassan Agha, 46 years old, Aruzun.

showed a slight tendency to dune formation, but was now wet after the rain. The height was 2497 feet.

We slept on February 12 till seven o'clock, when the temperature was 45.3°, and then we marched on between terraces breaking off suddenly towards the Kevir, and their fronts often deeply strewn with driftsand. On the left stood the little hill Kureges (Khur-i-gez), and on this side of it the small sand-belt Rig-i-kademu. The country was fairly diversified; fine tall saxaul grew more closely, alternating with steppe shrubs, where a lizard and two small birds contributed to convince us that we had really left the desert sea behind us. A withered palm leaf lay in a cleft, so we were approaching the home of the date palm, the warm land of the south, the beautiful land of oases, so different from the inhospitable wastes whence we had come. We crossed a path from Jandak and Cha-no, and the whole road wound among dunes and clumps of saxaul, where camels find pasturage.

Beyond the deep, slightly briny well Cha-penu our path runs up a distinct erosion furrow between banks of clay 20 feet high, its bed still full of wet mud after the rain of yesterday, which evidently produced a considerable stream down to the Kevir. We mount up towards the foot of the hill, and cross a succession of troublesome gullies. Again the boundless level Kevir comes into sight to the north. A white belt, but just discernible, is the large salt expanse we crossed. East-north-east, on the shore, rises a small isolated hill with a steely-grey cone very conspicuous against the dark surface of the Kevir.

The road we follow, the road to Aruzun and Khur, here consists of a score of parallel paths worn down deeply into the hard ground. They all finally run together into the single track we followed through the desert which, though passing over loose material, is yet in general but little sunk in, and if it is in certain parts a foot deep, that is only in relation to its own flanking banks. This circumstance also proves that the surface of the Kevir is not constant and immovable, but that a path which may become fairly deeply trodden down during the dry season may be wiped out when the Kevir has been soaked by the winter rain. The

Kevir's surface is, then, like the earth's crust, a comparatively solid sheet over an under layer of viscous fluid. It is evident that changes in the volume of this foundation must react on the crust and give rise to thrusts and lateral pressure.

The country becomes gradually more irregular, and from a last elevation we see the village of Aruzun picturesquely situated in its dell, where an irrigation canal forms an open pool at which camels and sheep are wont to drink. On a little mound beside the village stands a *burch*, or fort, said to be 150 years old, and dating from the time when Baluchis disturbed this part of the country. The little village, containing 8 houses and 29 inhabitants, has a neat and attractive appearance at the foot of its dark rugged hill. Its height is 3435 feet.

We established ourselves in a small cottage with a garden, and just in front of my door stood the first palm, while half-a-dozen others grew farther off—there are not many in Aruzun. My room was a tiny box, with a hole in the middle of the earthen floor for a fire. We at once made the acquaintance of the friendly inhabitants, and they provided us with all we wanted. Here we were well off again, after our stores had come to an end in the desert. Fowls, eggs, milk, bread, and vegetables were purveyed at once, and the owner of the village, an elderly man, offered us a *tebrisi* or *man-i-tebris*, of fine juicy dates. To give a notion of this measure, which derives its name from the town of Tabriz, I can only say that an ordinary camel load amounts to from fifty to sixty *tebrisi*, and 4 kran were asked for a *tebrisi*. The price, then, was very high, but that was because the crop had failed the year before; the usual price is $1\frac{1}{2}$ kran.

In Aruzun wheat, melons, grapes, mulberries, figs, almonds, apricots, apples and pears and tobacco are grown. The gardens were leafless, but seemed a fine sight to us who had just come from the desert. The village produces a revenue of 120 tuman, chiefly from the wheat crop, and also owns 2000 sheep, which graze on the *eilak* or meadows in the adjacent hills. Of other animals there are only five camels and eight asses. The

113. Dabaseh Ali, 70 years old, Turut.

114. Hassan, a Youth of Khur.

wild animals in the country are ibex, gazelles, wild sheep, and wild asses, the latter on the sandy desert on the border of the Kevir, the former in the hilly tracts. The owner of the village, our host, had shot many wild asses, and was wont to sell their skins to the shoemakers of Tebbes. When, as now, there was much rain, the chase was not profitable, for the wild asses could find water anywhere; at other times they are dependent on springs, and then is the time for the huntsman to stalk his prey.

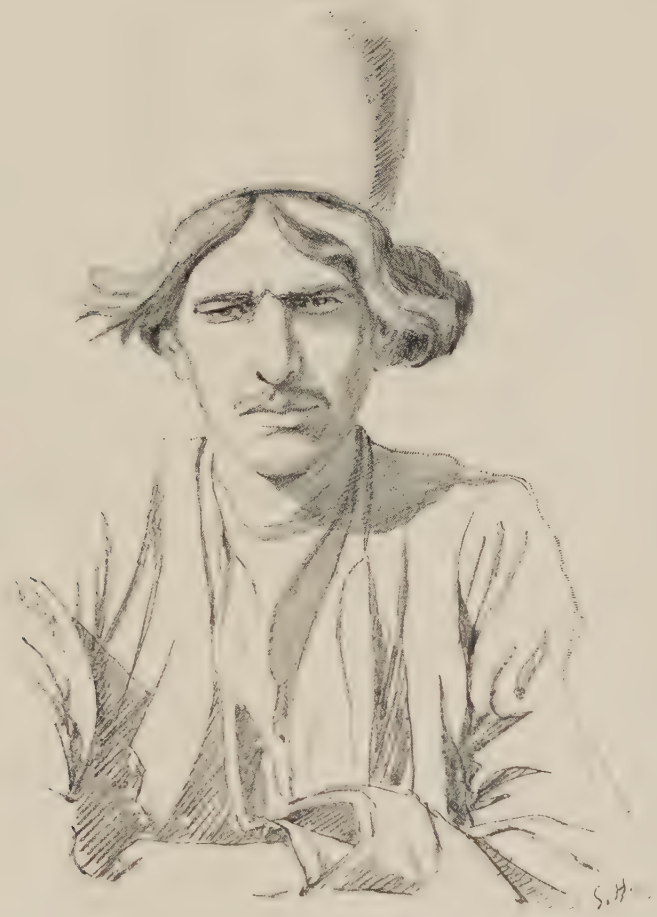
Nineteen different hills are visible from Aruzun, each with its particular name. Between N. 61° W. and N. 56° E., the Kevir takes up the whole of the outlook, and the horizon is as level as if drawn by a ruler. The desert is coloured pink, violet, and yellowish brown, all in dirty tones. The hills north of Turut and Husseinan are quite invisible owing to the windy hazy weather. Stronger than ever is the impression of standing on an uneven shore with a boundless sea stretched out in front.

We had not seen a drop of water on the journey to Aruzun except at the well Cha-penu, and in whatever direction one turns one's eyes from the heights over the undulating country, it bears the aspect of exceeding drought and barrenness. It is, therefore, surprising to hear that not fewer than forty-two wells and springs, some fresh, some salt, are situated in this country, and have all names. Only in the Persian salt-deserts is there any danger of perishing from thirst, for elsewhere there are innumerable wells and springs scattered all over the land, and seldom is a desert-route so badly provided that there is more than a day's march without water.

I had tried two meridional routes through the Kevir, and now I learned at Aruzun that a third way started from it eastwards to Halvan. It is 25 farsakh long, of which 12 are in the Kevir, and 13 over hard ground, with villages. It runs through Cheshme-airekun, and from Aruzun it is said to be 12 farsakh to Kuh-i-dumdar, which is the *evvel-i-Kevir*, that is, the beginning of the salt desert. This seems to indicate that a peninsula of dry land here projects out far into the desert. This way is said to be very difficult and barren. The Jandak–Peyestan route is

considered the best, the Aruzun–Turut somewhat worse, but the Aruzun–Halvan the worst of all, for *nemek bala amed* ("the salt comes up"). In many places, it should be explained, the slabs of salt, owing to thrusts and lateral pressure, have been thrown right up so as to form complete fences of salt slabs up to 3 feet in height. Yet with good and lightly burdened camels the journey to Halvan can be accomplished in two days, water being taken from the last well. The bed we crossed in the Kevir on the last day, called Shur-ab, continues eastwards and crosses the Halvan route also. In winter it is filled with water to the depth of 3 feet, through which camels cannot wade, for the bottom consists of soft mud into which they sink. In the summer and autumn the Shur-ab bed is dry. We find, then, that this bed, whether formed by flowing salt water or by other forces, has a considerable extension eastwards. On the other hand, there is no salt lake on the Halvan route, and it is doubtful how far the maps are correct which show such a lake in the eastern depression of the desert.

We resolved to stay for a day in Aruzun if the weather remained fine, so that I could draw, but to move on if it were gloomy. And gloomy it was, worse than ever, on the morning of February 13. So we packed up our belongings and left the neat little village, so jealously hidden in its dell that strangers not acquainted with the neighbourhood would never find it, were it not for the cairns and way-marks erected on the ridges and summits around it. Aruzun, like the other places we had recently come across, resembles a coast town which is in communication with the outer world through the caravan traffic across the desert. Most of the caravans come in spring and summer, for in winter they avoid this journey through the Kevir. Here also the tradition is current that the salt desert was formerly a large lake into which a large river through the bed at Aruzun emptied its water. Ruins of houses are found in many parts of the adjacent hills. It was also said that forty years ago wild camels occurred in the sandy deserts at the edge of the Kevir, but that nothing had been heard of them in recent times. The natives are



115. Tagi, 20 years old, Khur.

quite right in saying that the Kevir is a climatic boundary; the country to the north is considered *serhed* or cold country, but on the southern side of the Kevir the land is included in the *germsir* or warm land. Date palms, which grow in the germsir, are very rare to the north of the Kevir.

The small village soon disappears, and we make a détour to avoid the Panther hill, which leaves room only for a *gudar-i-piaderah*, or ravine path available for foot-passengers. We keep to the main valley, which rises up to the pass Gudar-i-penu, and I note down a collection of names of valleys, passes, and summits. A tamarisk-like bush grows here in great luxuriance, sometimes assuming the dimensions of a tree, which is called *badum-i-talkh* (bitter almond), or *badum-i-kuhi* (mountain almond), and which we have heard of before. Its fruits are bitter, but they are dried, ground up, and eaten mixed with sugar. The wood is burnt into charcoal and sold. At Cha-kotel-i-madki or "well at the pass of the kilns," we found several of these charcoal kilns, which are excavated in the ground and walled round, and look like ordinary wells. At the neighbouring Hebne-kotel-i-madki a temporary waterfall had deposited lime in the form of a bowl or basin, which was now full of clear, sweet water. Such natural cisterns are called *seng-ab*, or "stone-water." The rock is limestone.

A little higher up we pass the point where a road branches off to Khur-i-gez. Through this place runs a more level but longer road to Aruzun. And then we mount slowly up to the pass Gudar-i-penu (4032 feet), where the landscape changes in a moment; all the intricate dales and crests we have crossed disappear, and the country slopes down southwards, more even and slowly, to pass into an immense arena skirted on all sides by peaks, irregular and ragged hills. Kuh-i-shur-ab-sar in particular, the nearest to the right and a continuation of the ridge we have passed over, has the appearance of a row of ruined towers. About the pass a large flock of sheep is grazing, and it is astonishing that the animals can grow so fat and sleek on the scanty nourishment they find on this apparently bare slope.

The winding path descends the valley from the pass, at the bottom of which a *hauz* is set up, full of sweet but turbid water after the last rain. Two scarcely noticeable stone walls force the water to follow the channel in the valley which runs into the reservoir. The rocks in the country are very compact and of a light grey colour, and on more exposed flats and saddles are often brightly polished.

Leaving the little village Kelat-i-naghi on our right we go down to the flatter ground, where the cairn Chil-i-Muhamed-jun marks the distance of 2 farsakh from Aruzun.

At eleven o'clock the rain begins, and an hour later it pours down and lashes the ground with a pattering sound. All the hills vanish and only on the left are dimly visible through the mist. The wind blows hard from east-north-east, the *bad-i-Khorasan*, as the easterly wind is called in this district also; in all of north-western Persia it seems to be the rainy wind. It whistles and whines and moans and gives a dark and mournful autumnal character to the country. Small rivulets and brooks begin to trickle down all the furrows, and in an hour we are so soaked that in some places the water has penetrated right through our clothes.

We pass a last rather narrow portal, and then are out on the level steppe, and to the south-east can dimly perceive a hill called Kuh-i-kuddelau, reached, it is said, by the Kevir on the northern side. Immediately to the west of our road runs a range falling steeply towards the east, called Kuh-i-siah-tagh, or the "hill of black saxaul." Down on the steppe the saxauls grow in very close clumps, and right through the largest belt runs a dry river-bed, called Rud-khaneh-i-ghas. Here a small caravan of two men and eight camels is resting, which is carrying sacks of dung to Abbasabad. The men sit crouching under their cloaks, and let the camels graze, but they come to the camping ground of the day an hour after us. A covey of partridges runs away among the bushes as we pass by.

At the western foot of Kuh-i-kuddelau the ground is coloured light yellow by the clay deposited by rain torrents. To the south-east stand three isolated elevations, which are said to be situated in a bay of the Kevir, and beyond lie

116. Two Men of Aruzun.

117. Street in Khur.

four small villages: Kelat-i-kemal, Kelat-i-hadi, Peh, and Peshover, in the first two of which date-palms are cultivated.

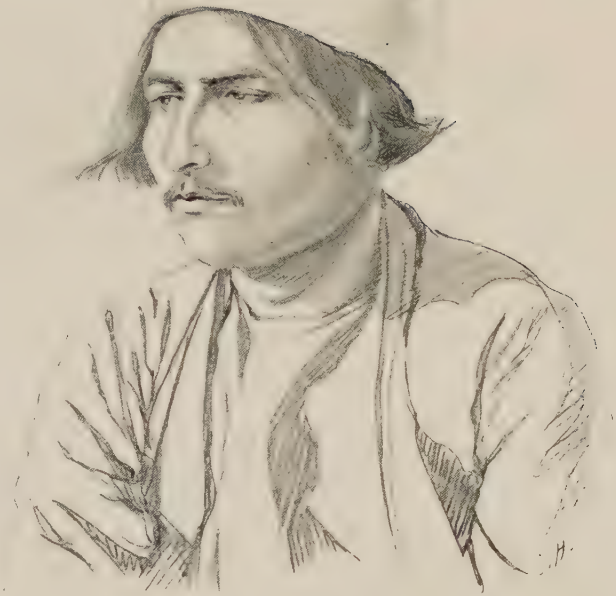
At half-past three the rain poured down with quite tropical violence, but it troubled us no more, for we were already as wet as we could be after five hours of continuous rain. All the ground was full of shallow puddles in which the rain pelted and pattered, and the water splashed and spurted up after the camels. The ground was transformed into a slough, but it was fortunately sandy, and the camels did not stumble. Here and there pieces of black slaggy lava were scattered about. Not a spot of light was to be seen in the sky, and not a cloud was distinguishable; all was of a dark uniform grey, and only the nearest hills appeared as rather darker patches.

At last a dark green line came in sight before us, the date palms of Abbasabad, and above them lay the village with its beehive cupolas (2815 feet). Under one of these we came into a smoky room open to the courtyard, made up a roaring fire at which we tried to dry our effects, clothes, and rugs, though it was scarcely possible. They could not have been wetter if they had been dipped right into water. An inner pitch-dark den was cleaned out for my use, and here it dropped delightfully through the cupola roof, so that there seemed to be danger that the whole vault would be softened and fall in with its own weight. Outside, the storm raged, whistled in the corners and beat down the rain, and water trickled and dropped everywhere. Gulam Hussein and Ali Murat hung up our clothes by the fire on poles and ropes, and it was pitiable to see them dripping from all points.

But we might be glad that we had come out of the desert before this deluge made the Kevir impassable for quite twenty days. We were told that the desert, after such continuous rain, would be converted into a *darya* or a sea, and that the salt crusts we crossed would lie under a foot of water collected from the surrounding tracts. All traffic would be suspended, and the caravans that chanced to be lying waiting at Jandak, Husseinan, Peyestan, or Turut, might just as well return home, for after such a

soaking as this the Kevir would not dry as easily as after the rain we had been out in. Had we been caught by it in the middle of the desert our situation would have been desperate, and if it had come while we were still at Turut, the eastern route round the salt desert would have been our only resource. We, had, therefore every reason to be glad that we were south of the Kevir.

It was a surprise to me to see such weather in the midst of the deserts of Persia, and such violent and deluging precipitation in a country where one would expect nothing but drought. But it was no *germsir* or warm land, for at nine o'clock the temperature was 40.1°, and the air felt cold, damp, and raw.



118. Faraj Ullah, 20 years old, Khur.

119. Abbas, 54 years old, Khur.

CHAPTER XXXIV

AN OASIS ON THE COAST OF THE KEVIR

DREARY, cold, and yellow as the desert, Abbasabad, with its four cottages adorned with cupolas, subsists on a thousand date palms, of which six hundred bear fruit. Of other crops only wheat, barley, and cotton are grown, and the inhabitants own sixty camels and fifty sheep. The irrigation water, which is conducted hither by a kanat of the usual kind, is salt and undrinkable; but fresh water is fetched from a rivulet of spring water in the neighbourhood. Immediately to the south of the hamlet is a broad and shallow bed called Rudkhaneh-i-gohugun, which carries water only after rain, but then often in considerable volume. It debouches into the adjacent Kevir after collecting water from several valleys to the west. After midnight, and early in the morning after a rainy day the bed is said to be so full that it cannot be crossed. The people were glad of the rain, for now all the cisterns would be filled and the pastures would sprout up. Rain may be expected up to April, but after that the sky becomes persistently clear. There is seldom rain for two or three days together, and sometimes the precipitation is very insignificant. Snow seldom falls, and the summer is very warm, while the winter is the season of wind storms.

From Abbasabad roads run to Khur-i-gez, Aruzun, Jandak, Ferrukhi, and Khur. There is said to be a direct road through the Kevir to Halvan, but no one could give any details about it.

When we crept into bed at ten o'clock the rain still

poured down, and the old man, our host, advised me earnestly to lie as close to the wall as possible, for he could not answer for the cupola, which might come down at any moment.

The rain ceased at seven o'clock on the morning of February 14, after lasting continuously for twenty hours, but the sky was dark and threatening all day long, and a little rain fell at two o'clock. We bade farewell to Abbasabad, crossed the stream bed mentioned above, and left Kuh-i-kuddelau on the east and nearer on the west Kuh-i-hamsau, a direct prolongation of Kuh-i-siah-tagh. At 5 or 6 farsakh to the west stood Kuh-i-gumbei, which rises above Ferrukhi, and was now snow-clad from top to bottom. It is strange to see a snow-clad hill in a germsir; but it was simply that the late precipitation had taken the form of snow on the heights, and it would soon disappear.

After crossing the road from Jandak and Cha-no to Khur we come to Mil-i-divun, a stream carrying 105 cubic feet of very muddy and bitter salt water, which, however, is said to be sweet farther up. The case is the same with Rudkhaneh-i-gohugun, both streams becoming salt when they come in contact with the ground of the Kevir. They are then called no longer Rudkhaneh, but Shur-ab. From the right bank of the Mil-i-divun runs off a race which drives a mill (*asiab*). Then we cross an arm of the Kevir and afterwards a belt of firm ground, where the reservoir Hauz-i-hizer is placed in the midst of a large expanse of mud. At its southern end lie the ruins of the recently abandoned hamlet Hizer.

Then follows an arm of the Kevir nearly a farsakh in breadth, where the slippery mud was so softened by the recent rain and swollen up that we sank in more than a foot and were muddy up to the knees from scrambling through it. This inlet or bay of the Kevir is said to extend 8 farsakh westwards up to Cha-melik and Ser-i-cha-absel. Strictly speaking, one can scarcely call it an arm or bay, but it is rather a furrow to which the streams and rivers from the west collect the fine material which passes into Kevir clay; it is a sort of mud stream

120. The Oasis of Khur.

flowing into the Kevir. That such is the case is proved by its relief and other characteristics. Its northern edge resembles a glacier or lava stream, a moving viscous mass lying high above its underlying bed, and falling steeply towards it. The southern border, on the other hand, is on a level with the firm ground or a little lower. It seems, therefore, as if a creeping motion took place in the mass northwards, and so much the more that it is mixed on the southern margin with sand derived from the coastal region. On the whole, the viscous flowing mass moves north-east, naturally very slowly, and in fits and starts; that is to say, after it has been sufficiently soaked by rain and the streams and brooks which empty themselves into it after precipitation. At some distance to the west of our route the arm expands, and is three or four times as broad as where we crossed it. This expansion possibly serves as a recipient or reservoir, from which the smaller branches of moving mud take their rise; the reservoir plays the same part as a firn basin with respect to a glacier. If the Kevir be regarded as a large lake of mud, the arm we now crossed is simply a mud river debouching into it.

Presently the slough comes to an end, and coarse sand extends before us. During all the short day's ride from Abbasabad the Khur oasis is visible, and in clear weather it can be seen from a yet greater distance. The dark palms appear in close groves, surrounded by low grey mud walls, against which sand-hills are piled up on the outer side. The village is sharply limited within its walls and outermost mud houses, to the base of which the desert reaches. Not till we skirt the western corner do we see the camp of our men and are caught sight of by them. My tent is set up in a hurry and is ready when we come up. After the usual salutation ceremonies Abbas Kuli Bek delivers his report. They had stayed four days at Jandak and had come to Khur in four days, where they arrived eight days ago. All were well, and the camels had become fat and sleek during their long rest. The first thing I did was to take a good bath to get rid of all the Kevir salt which stuck to my skin.

The day was not suitable for outside work, for the wind was high, and light showers fell at intervals. But it was grand to sleep again in my comfortable bed and in my cosy tent, and not to have to lie out on the ground beneath the Caucasian cloak.

February 15 we spent at Khur. I drew a panorama of the district, sketched a few characteristic types, and took photographs. Then I went for a walk through the picturesque and sunny streets of the village, where are sometimes seen small arches spanning the passages without any apparent object. From the lanes you come through a portal to an entrance usually with doors to two courts. There are two mosques, a hammam, and a tower erected on a small mound of sandy earth, and from its top there is a topographical view of Khur and its environs, the palms and the Kevir beyond. Two squares interrupt the labyrinth of lanes; there is no bazaar, but there is a caravanserai and the ruins of another outside the village. A tepid spring, now 68°, gives origin to a small rivulet, and the kanat of Khur with its ramifications runs through the village where vertical wells are often seen in the middle of the lanes. Quite a deluge of water had yesterday flowed through one street, which after the water had subsided rather resembled a bed of mud. An open space had been flooded, and a newly-laid-out garden had been washed away. The height was the same as at Abbasabad, 2815 feet.

Khur, it seems, has about 500 inhabited houses, besides no small number of deserted huts. The houses are each inhabited by from three to eight persons, so that the inhabitants number about 2500 in all. There are several other hamlets in the neighbourhood, but they are small, containing at most only a dozen huts and some only two. The people of Khur own 1000 camels, 1200 sheep, which are driven into the village every evening, 150 cows, 100 asses, 2 horses, and 2 mules. Their wealth and chief source of support are, however, the palms, which before 1903 amounted to about 10,000. But in that year a great misfortune ravaged the palm groves of Khur. An unusually heavy snowfall was followed by a long spell of icy

121. A Group in Khur.

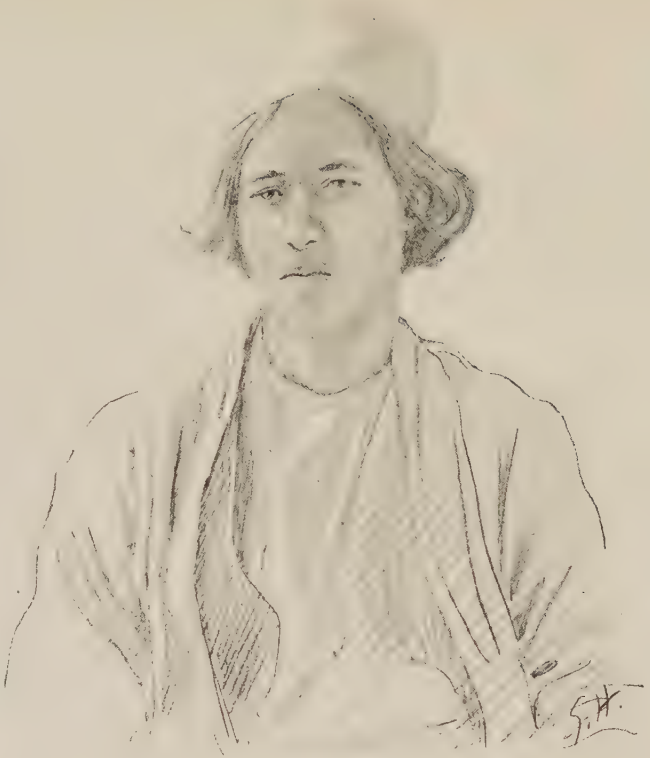
wind, so that 4500 palms were frost-bitten. Therefore, a time of dearness and scarcity now prevailed in Khur, and a *mân* of wheat, which used to cost 2 kran, now fetched 5. This year, however, a good harvest was hoped for from the remaining 5000 palms. The dates are sold in the northern districts, and with the price flour is bought; wheat and corn are grown but not sufficient for the needs of the village. The palms are planted in rows within mud walls, and the ground between the trees is sown with wheat and barley, which was now fresh and beautifully green, and the palms seemed to grow up out of the finest carpet. Pomegranates, pistachios, melons, beet, vegetables, and cotton are also grown here.

Khur lies almost on a peninsula in the Kevir, quite on the shore of the sea of salt desert, which extends its dark brown and white belt to the north of it. It is astonishing to see this thriving and luxuriant palm garden so near the dreadful salt desert as much as it is also to see snow-clad heights in the home of palms. These are very great and surprising contrasts.

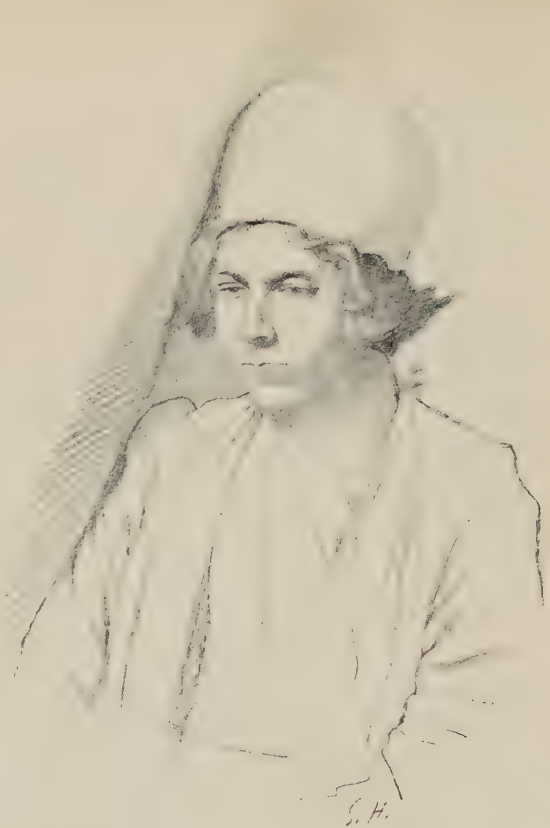
From Khur also run a bundle of routes in different directions, as for instance, to Yegark-Tahrabad, to Germe-Mehriyan, to Halvan, Aruzun, Jandak, Cha-melek, and Ferrukhi, as well as to Tebbes, Yezd, and Biabanek. It was particularly interesting to hear of a direct road from Khur also through the Kevir to Halvan, but it was said not to have been used for ten years previously. I found, however, some men who had travelled by this route and could give some information. It was reckoned to be 24 farsakh long, all in the Kevir except the last farsakh before Halvan. The reason it had been abandoned was that the salt slabs had been tilted up in many places into walls blocking the way. Three farsakh to the north-east from Khur the river-bed Rudkhaneh-i-ab-i-nemek or "the salt water river" is encountered; it is a continuation of the salt stream we crossed south of Abbasabad, and which is there called Mil-i-divun. The road follows its course for a distance of 3 farsakh, whereupon the stream disappears into a hole in the ground, which is never filled, however abundant the flow of water may be.

After a more thorough inquiry about this singular place, I learned that the salt stream flows towards a slight depression situated in the north-east; its bottom is occupied by an extensive salt crust 2 feet thick, of the same kind as on the Jandak and Turut roads; a smaller area of this salt crust has sunk into the underlying mud (*furu mired*), and in this way the "hole in the ground" has come into existence. It is in this hole that the stream disappears, that is to say, the surface of the water always stands at the same level in the salt ruts. That no flooding takes place is easily explained by reference to the level of the ground-water around. On the other hand, nothing is known of any salt lakes in the Kevir on this track. The route is now, as already said, abandoned, and those who wish to travel from Khur to Halvan follow the eastern edge of the desert.

I had intended to set out on February 16, but when Mirza reminded me that this day was Friday and therefore a *sengin rus*, or a bad day for a start, we decided to devote twenty-four hours more to Khur. I therefore had an opportunity of adding to my portrait-gallery, and sat for four hours surrounded by an inexhaustible supply of models, among which I had only to make my choice. The drawing was both an agreeable rest and also a source of great satisfaction, and by listening to the conversation of the spectators I obtained a lesson in their language gratis. One interested onlooker made the flattering remark that a portrait was more like than the original. Another said that my hand only held the pencil and followed its movements, but that it was the pencil which traced on paper the features of the original—an unusually witty remark to come from Khur. But sometimes things went wrong. Thus, I had drawn several men and wished to immortalise some of the ladies of Khur, and Gulam Hussein had undertaken to find models. The first was a girl of nine years named Khanum. She sat quite still, and I had nearly finished when her mamma, well wrapped up in her long white veil, came fluttering by like a ghost, screaming, and complaining that a *ferengi* (European) was bewitching her daughter with his evil eyes. The latter, of course, joined in the shrill wailing, but the drawing was finished, and tears did not appear in the portrait.



122. Rahmet Ullah, 16 years old, Khur.



123. Kodret, 16 years old, Khur.

After this unexpected commotion we could not induce any woman of Khur to sit at any price. But they could stare; they sat like magpies on a neighbouring roof and talked, chattered, and laughed under their dirty white veils.

A youth of twenty years named Taghi found his way into my sketch-book; he had clearly-cut Aryan features, a handsome oval face with straight eyes and eyebrows, a well-modelled aquiline nose, finely curved, moderately thick lips, a high forehead, and, as is common in Eastern Persia, a parting in the middle of the forehead from which the long dark hair hung down on either side like curtains. On his head he wore a cylindrical felt head-dress, had slippers rather than shoes, and a light and airy dress in blue and white, much worn and begrimed.

Nadir Kuli was an old man of seventy in a white beard and a turban. Faraj Ullah may be described in much the same words as Taghi, but his felt cap was dome-shaped. Abbas was fifty-four years old, with a handsome distinguished appearance. Kodret, sixteen years old, stood leaning against a doorpost while he was drawn. Hussein, a boy of ten, was the next model, and he was followed by the camel-owner, Kerbelai Mirza, seventy-five years old. Rahmet Ullah carried his head high, and was sixteen years old, and Hassan of Khur was of the same age.

The women of the oasis were quite as closely veiled as their sisters in Teheran. The larger the place the more strictly is this custom observed. In small villages, such as Kerim Khan and Alem, the women are more independent of the veil. It is really also to hide the women and preserve the peace of family life that all the houses and courts are closed to the streets. Gulam Hussein had his father, his brother, his wife, and a five-year-old son in Khur, and the whole party dwelt in three dark rooms between mud walls and under beehive cupolas of the same material. My honest Gulam was given permission to devote himself to his family during our stay in Khur, and at starting he begged to be allowed to stay a day more; he could easily overtake us by making two days' journey at a stretch. He had not seen his family for a long time, and had heard no news of them, but he showed no sign of excitement when

we approached his native village. He greeted them like a bird of passage as he went by, and parted from them without the least appearance of sadness. There is no room for tender feelings in the breast of a Persian camel-driver. He cannot love and yearn—it is all very restful and pleasant once in a way.

After a thorough rest our fat and hearty camels took to their loads again on the morning of February 17, and needed no help from hired camels. They would be able to endure without difficulty the ten days' stages which still separated us from Tebbes. As usual men and boys turned out to gaze, while the house-roofs were garnished with inquisitive women, all wrapped in their dirty white bath sheets of veils. I rejoiced to hear again the ring of my own camel bells and to sit steadily and comfortably on my tall bearer, as we trooped out of Khur, and its groups of mud cabins quickly vanished. Equally suddenly the palms came to an end immediately we had crossed a succession of furrows, hollows, ditches, and holes, all formed by rain-water and some of the latter still filled with it.

Mezre-i-neru is a small outlying village with its own grove of palm trees, and situated close to the edge of the white Kevir like a fishing station on a coast. To the north the hill Kuh-i-kuddelau rises out of this Kevir, which when we first saw it through the rain on the way to Abbasabad looked much larger than now. After a low ridge of low hillocks comes a level plain bestrewn with small pebbles, quite sterile, and falling slightly towards the north-east; here is a hauz for rain-water. South of our route appear new sections of the range Kuh-i-irech, their upper parts covered with snow. Half a mile to the north the boundary of the Kevir is very distinct and exceedingly sharply defined. Along it runs another route, which is said to be a shorter way to the day's camping-ground, but it cannot be trusted after the rain. Kuh-i-Halvan is faintly visible, but it can scarcely be distinguished from the clouds on the edge of the horizon.

At Rudkhaneh-i-ambar we have finished *ser-i-yek-farsakh*, or the first farsakh. To the right of the road where shrubs grow, a herd of camels is grazing and our stallions

124. Nadir Kuli, 70 years old, Khur.

become unruly at the sight. Foam falls in drops from their fleshy lips, they gurgle and bubble heavily, throw back their heads and rub their necks against the front hump and swing their tails. The black dog is still with us, and has earned a certain popularity in the caravan through his conspicuous service as a watch. Nevengk's forepaws are lame and sore from the smarting salt of the Kevir, but Avul Kasim anoints them with henna, and that does them a deal of good.

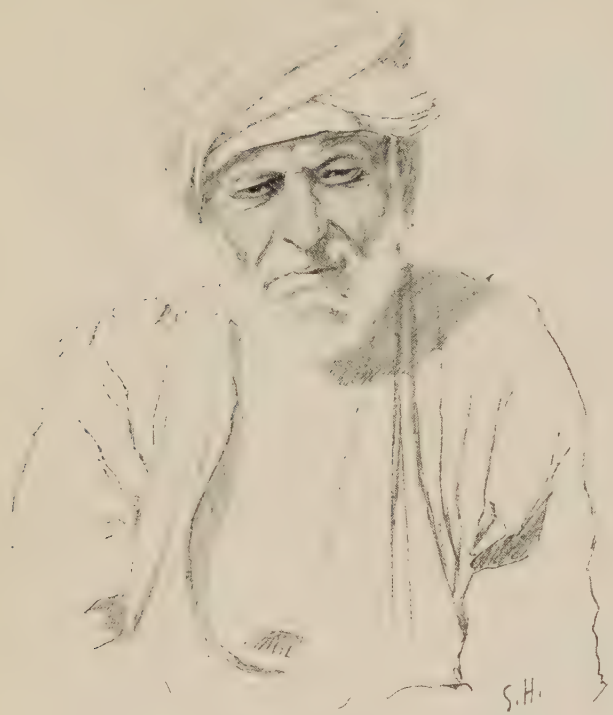
We are out again in the desert, and have begun a new chapter—the road to Tebbes, and Tebbes is one of the chief points of our pilgrimage, and from all we have heard about it we expect a real paradise in the heart of the desert. Khur is the last permanently inhabited place we have touched at for several days, and when its dark palms are concealed by the nearest hillocks we seem to have left an island and to be steering out to sea again. Our short visit brought a change in the monotonous life of the natives; they would puzzle over the reason of the visit and especially at the portrait-drawing, but they would also remember for a long time that my cashbox was lighter by the 68 tuman they had received. Yes, it was quite as when a ship puts in for a day or two at one of the islands of the southern seas, and barters and trades with the natives. They had seen us march off, and their life would again flow on as monotonously as before. They would look after their fields and harvest their dates, and from the balconies of the mosques the voice of the muezzin would quiver through the palms and die away over the silent slumbering Kevir. The motionless billows of the quiet sea would as before caress the foot of Kuh-i-kuddelau and its dreary spurs and knolls, which gradually disappear in the distance. Barren and lonesome the desert opens its jaws to meet us, hour after hour we have the Kevir on the left and the irregular dark crest on our right. "*Sa'ab, incha ser-i-seh farsakh est*," says the guide as he comes to the side of my camel and wakes me from my dreams—"Sir, here 3 farsakh are behind us."

The white belt of salt which skirts the coast to this point narrows and thins out, and then the Kevir assumes

a dirty-brown undecided tinge, though white streaks are still seen farther out. In Khur the men said plainly that the Kevir is a lake, a lake concealed beneath a mantle of salt, dirt, and clay. They declared that if a hole were broken through the salt, which in some places goes down to a depth of 5 feet, the crowbar would sink to the bottom of the Kevir, and how deep that was no one knew.

The path we follow, the highway to Tebbes, is less worn than one would expect, and we do not meet a living soul all day, but caravans from Tebbes to Khur, on their way to Shahrud, mostly travel in spring and early summer; and they also travel always by night, and that is why the road is marked by a series of cairns. There seems to be no local traffic of any consequence, for each of the two oases is self-sufficing. The straight through route which runs across the Kevir from Khur-i-gez to Tebbes, and which consequently cuts off the great southern bay of the desert, is never used in winter. Even in spring and summer, when no danger from rain threatens, it is considered very inconvenient, because it is lumpy and uneven, with salt and clumps of hard clay something like slag and lava.

Our road, hitherto east-south-east, now turns towards the south-east and approaches the foot of the hills. With a temperature of 57.9° at one o'clock, it feels quite warm, and gentle cooling breezes from Khorasan would be welcome. Hauz-i-teshtab is full of sweet muddy rain-water, where the camels drink their fill, and then we encamp among pebbly hillocks at the well which bears the same name (3015 feet); its water is briny, but we have cisterns in the neighbourhood, and have also a calfskin of water with us. Flies, gnats, spiders, and ants now begin to move about, and in the evening the tent must be left open that it may not be too much heated by the brazier. My working day is long; I am at work for sixteen hours with only a deduction of two and a half hours for breakfast and dinner, packing up, and encamping; but the day's journey, map observations, drawings and notes take up quite thirteen hours. Therefore rest is eagerly expected when the friendly silence of night arrives.



125. Kerbelai Mirza, 75 years old, Khur.

126. A Boy with a "Tangol," and an Old Man with a Staff, in Khur.

I laid myself down at ten o'clock, looking forward to eight hours of much-needed sleep, but I was disappointed, for at eleven o'clock an unusually violent tempest from the west swept over the country, and would have thrown down my tent if I had not got up in time and held the tent-pole till Avul Kasim came and belayed the flapping canvas. The wind lasted only half-an-hour, but before it abated the first heavy raindrops began to patter on the tent, and were soon followed by a regular tropical deluge of rain of such violence that the tent seemed ready to collapse under the weight of the water. All that lay outside was hastily crammed into boxes, which were moved into the middle of the tent; and when I was tucked up in bed I could let it rain on in peace. But I lay and heard the close pelting rain from a cloud, accompanied by heavy scattered drops from another. And then I heard it begin to drip into the tent and saw puddles form here and there inside. Fortunately we had pitched our camp on a small rise, or we should have been surprised by one or two trickling rain torrents.

The rain continued all night long, and when Avul Kasim awakened me he informed me that it still rained, and that the sky was black with clouds. By seven o'clock the weather had improved, and we were able to commence our day's ride with dry clothes. But the camels looked as if they had just come out of a bath, and their pack-saddles were soaked through with water. The load they had to carry was, therefore, considerably heavier, and the tents were double their usual weight.

The Kevir, the edge of which is seen 2 farsakh off to the north, has assumed a darker colour than yesterday, and the guide explains that the ground must be transformed into loose soft mud. The furrow from the Teshtab hill, at the foot of which we encamped, was early in the morning overflowing, but now reddish turbid water to the volume of only 12 cubic feet runs down its channel. Patches of scum lying here and there show that quite a torrent must have come down from the slopes. Along the road, and especially in the hollowed track, pools lie now everywhere for any one who is thirsty, and the

ground is wet and spongy from this heavy rain; but a cold moist Khorasan wind does all it can to remove the moisture.

The country is gently undulating, and near the camp lies a sandy belt with numerous saxaul bushes. The Teshtab furrow can be distinguished by dark conspicuous banks winding at least half a mile down to the Kevir, which becomes darker with the distance. The salt desert nearest to us is greyish yellow, which passes into a dark reddish brown and nearly to black in the distance, indicating an increase of moisture towards the lower parts of the depression. The white strips of saline efflorescence seen yesterday have now disappeared, but no doubt only to show up again as soon as the upper layer of the desert dries.

The path runs over fine pebbles and sand resting on a substratum of yellow clay. On the left lies a belt of saxaul, and on the right grow low steppe shrubs. The comparatively high hill ridge to the south is lightly covered with snow, and round its summit heavy threatening clouds are again piled up. But the weather clears again, and the sun comes out. Then the water is heard trickling, bubbling, and purling on the ground, which is as sodden as a swamp. The small isolated hills and crests come into sight again, and those that rise to the north-west are tinged with pale shades of blue and pink, which seem to hover like light veils above the dark surface of the Kevir.

At Rudkhaneh-i-lundeher we have marched 2 farsakh, and already the puddles on the ground become fewer, soon to vanish altogether. The leader believes that this is because it has rained less eastwards, but I suspect that the evaporation taking place during the day is responsible for it. The furrow mentioned, which we follow upwards towards the south-east, is eroded between red hillocks, and when we again come into open country we ride through belts of fine saxaul. The rock is red sandstone.

We approach again the shore of the Kevir, which is now barely a farsakh off. To the north, north-east, and east-north-east, the horizon of the desert is absolutely flat, and more than ever the desert conveys the impression of an immense lake, and the more so that in this direction there

is a shimmer of white salt, as if ice-floes were swimming on the surface of this fantastic lake. The more I see of the Kevir at its various outskirts and in the interior and of the country around it and of the weather, the clearer becomes the conception I had formed at the first sight of it regarding its origin. Not least had the heavy rainfall in the night made a very powerful impression in this connection. According to the Persians' statements, rain was unusually plentiful this year, and such a downpour as that of last night was of seldom occurrence under any circumstances. The real rainy season occurs in the latter half of winter. At other times the sky is generally clear, and the summer is burning hot. It is evident that under such conditions, and in the absence of protective vegetation, denudation must proceed with great and destructive energy. It is the part of the rain to wash down, during the winter months to the Kevir all the material pulverized during the summer; and during the lapse of thousands of years the depression has been filled up with solid matter. And all the streams enter the Kevir and contribute to maintain the moisture in this subterranean lake.

We march eastwards, and before us the view is unlimited, but on the right the level horizon is intercepted by a projection belonging to the chain at the foot of which we are travelling, and which is called Shiker-ab, after a well that is situated there. We cross innumerable shallow trenches, but otherwise the ground becomes more even and flat towards the east.

At Hauzi-i-patil, where we encamped (2713 feet), we had not far to go to reach the edge of the Kevir, and the question was whether we should venture to cross the great bay of salt desert which here projects out southwards. If we went straight across this bay we should save much time, but if its ground were too spongy we had no choice but to go round.

At the camp were two cisterns, which were now full to the brim of yellow rain-water. They had, declared our guide, been filled by the rain which overtook us on the way to Abbasabad, but the rain of the previous night had contributed nothing to the cisterns' store, as could be seen by the channels leading to them. It seemed, then, as if the

rain had really been less heavy here in the east than at Teshtab, and Gulam Hussein, who turned up in due time at night, was able to corroborate this view. He reported that it rained furiously at Khur; and perhaps the rain over the Kevir bay had been so trifling that we might try the direct way.

Gulam Hussein also informed us that next day a caravan of forty camels, laden with date pulp, was to go from Khur through Darin and Halvan to Turshiz, from which it would fetch wheat, barley, sugar, and raisins; it would follow the southern margin of the Kevir and have fifteen days' journey to Turshiz.

Hauz-i-patil is a dismal place, but we had abundance of water and firewood. The boundless Kevir dominated the landscape, and far in the east were seen the hills at Darin and Halvan, which now ran together into a light blue outline, hard to distinguish from the everlasting clouds which seemed unable to decide on leaving the sky.

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